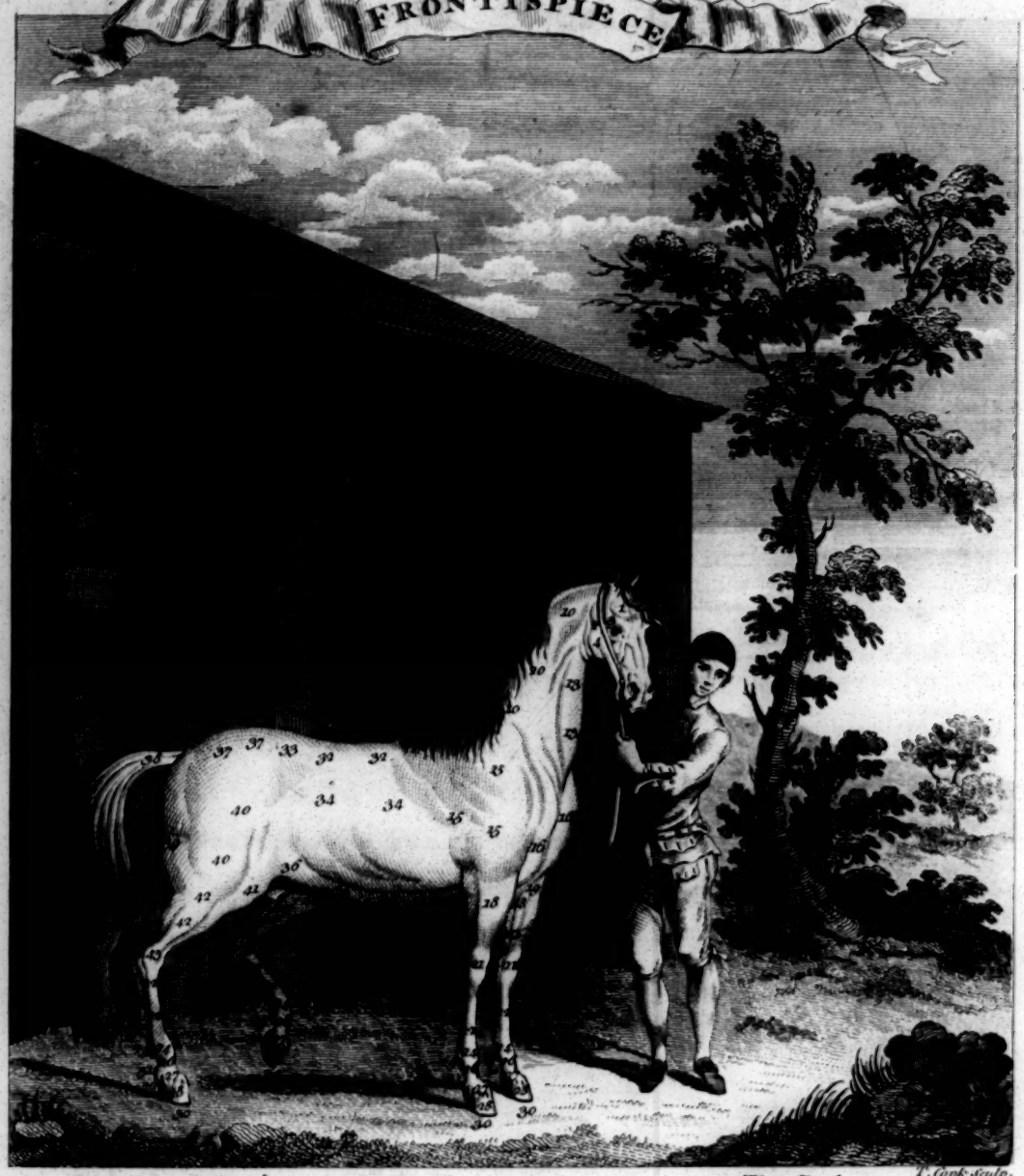
FRONTISPIECE



T. Cook Sculp.

The Fore Part.

1. *The Forehead.*
2. *The Temples.*
3. *Cavity above y^e Eyes.*
4. *The Jaw.*
5. *The Lips.*
6. *The Nostrils.*
7. *The tip of the Nose.*
8. *The Chin.*
9. *The Beard.*
10. *The Neck.*
11. *The Maine.*
12. *The Fore Top.*
13. *The Throat.*
14. *The Withers.*
15. *The Shoulders.*
16. *The Chest.*
17. *The Elbow.*
18. *The Arm.*
19. *The Plate Vein.*
20. *The Chesnutt.*
21. *The Knee.*
22. *The Shank.*
23. *The Main Tendents.*
24. *The Fetlock Joynt.*
25. *The Fetlock.*
26. *The Pastern.*
27. *The Coronet.*
28. *The Hoof.*
29. *The Quarters.*
30. *The Toe.*
31. *The Heel.*

The Body.

32. *The Reins.*
33. *The Filletts.*
34. *The Ribs.*
35. *The Belly.*
36. *The Flanks.*

The Hind Part.

37. *The Rump.*
38. *The Tail.*
39. *The Buttocks.*
40. *The Hanches.*
41. *The Stifle.*
42. *The Thighs.*
43. *The Hock.*
44. *The Kerb.*
45. *The point of y^e Hock.*

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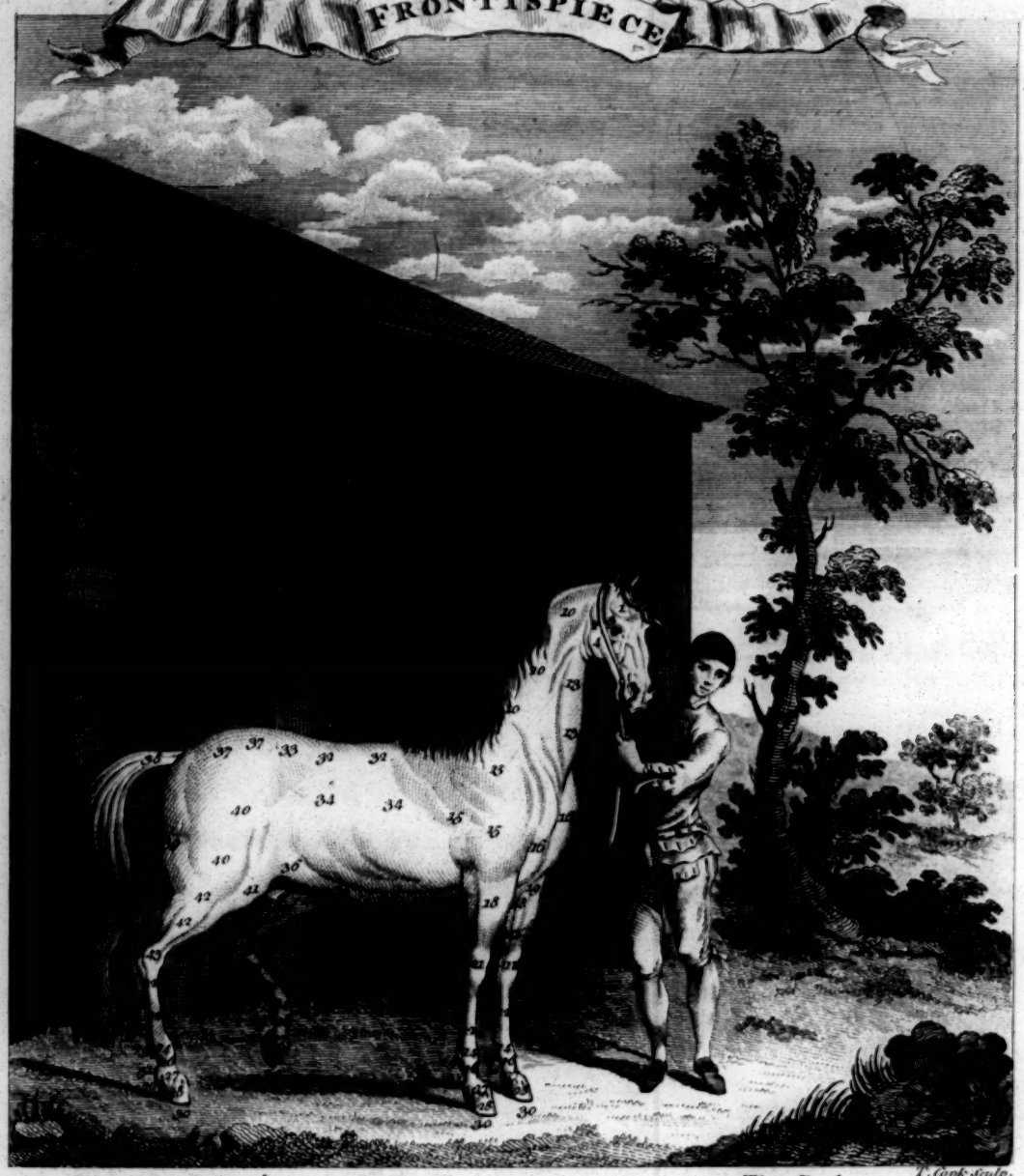

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THE

SPORTSMAN's DICTIONARY;

OR, THE

GENTLEMAN's COMPANION:

FOR

TOWN AND COUNTRY.

CONTAINING FULL AND PARTICULAR INSTRUCTIONS FOR

RIDING,	SETTING,	FARRIERY,
HUNTING,	FISHING,	COCKING,
FOWLING,	RACING,	HAWKING, &c.

WITH

The various METHODS to be obſerved in BREEDING and DIETING of HORSES both for the ROAD and TURF;

ALSO,

The MANAGEMENT of DOGS, GAME-COCKS, DUNGHILL-FOWLS, TURKIES, GEESE, DUCKS, DOVES, PIGEONS, SINGING-BIRDS, &c.

And the MANNER of CURING their various DISEASES and ACCIDENTS.

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WITH VERY CONSIDERABLE ADDITIONS AND IMPROVEMENTS,

BY EXPERIENCED GENTLEMEN.

ILLUSTRATED WITH COPPER-PLATES,

Repreſenting all the DIFFERENT KINDS of NETS, SNARES and TRAPS, that are now made Uſe of in FOWLING; and the IMPLEMENTS for ANGLING.

THE FOURTH EDITION,
CONSIDERABLY IMPROVED AND ENLARGED.

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THE

PREFACE.

THE mind of man is incapable of a conſtant application, either to ſtudy or buſineſs; it is therefore highly neceſſary to relieve it, at convenient ſeaſons, by ſuch relaxations as may refreſh its faculties, and recruit the animal ſpirits that have been diſſipated by laborious purſuits, or a length of ſtrict attention. And when the amuſements to which we have recourſe, on ſuch occaſions, are friendly to health, delightful to the ſenſes, and perfectly conſiſtent with innocence, they have all the recommendations we can poſſibly deſire.

The ſubjects of theſe ſheets are entirely of this nature, and are ſo peculiarly adapted to ſcenes of rural life, that a juſt knowledge of them is conſidered as a neceſſary accompliſhment in gentlemen, who devote their vacant hours to the country.

It would be needleſs to enlarge on the ſatisfactions and advantages they are capable of affording us. No proſpect of nature can awake more pleaſing ideas in the imagination,

nation, than a landſcape, diſtributed into verdant woods, and opening lawns, with the diverſity of extended plains, flowery meadows, and clear ſtreams: the heart of a contemplative beholder melts into ſecret raptures at the inchanting view, and he is immediately prompted to hail the Great Benefactor who ſheds ſuch a profuſion of beauties around him. But when he likewiſe regards them as ſo many rich magazines, intended for the accommodation of his table, as well as for the improvement of his health, and the ſolace of his mind, he begins to think it a reproach to him to be unacquainted with the manner of acquiring theſe enjoyments that were created for his uſe with ſo much liberality; and he is then convinced that Hunting, Fowling, Fiſhing, Riding, &c. &c. are more neceſſary to his welfare than at firſt he might imagine.

In order therefore to render theſe, and other rural recreations, as intelligible and familiar as poſſible, we have carefully collected the beſt obſervations that have been made on each article; we have conſulted a variety of authors on this occaſion, and have ſelected every particular from them, that we thought would contribute to pleaſure, intereſt, and improvement; and, as we were deſirous to render this work as complete as poſſible, we have prevailed upon ſeveral gentlemen of diſtinguiſhed abilities and experience, to favour us with a great number of intereſting paſſages, that we are perſuaded will be very acceptable and inſtructive to thoſe who have an inclination to gain a competent knowledge of theſe agreeable ſubjects; and we have ſelected from ſome modern publications, various articles that may improve and elucidate the ſubjects herein treated of, particularly from the valuable publication of Mr. LAWRENCE, who has obliged the public with ſome excellent obſervations relative to horſes, &c.

As our intention was to make this performance equally perſpicuous and regular, we have digeſted it into the form of a Dictionary, in which we have been careful to range under

under each head every particular peculiar to it, ſo as to illuſtrate the articles in the moſt effectual manner; by which means we have rendered the whole ſo methodical and familiar, even to a common comprehenſion, that we flatter ourſelves we ſhall not be taxed with obſcurity in any material circumſtance neceſſary to be underſtood. We may likewiſe venture to add, that the plan we have purſued, through the whole courſe of theſe ſheets, will eaſe the curious of the expence and trouble of conſulting a number of books written on theſe ſubjects, ſince, as we have already intimated, all imaginable care has been taken to extract from the moſt approved authors whatever obſervations may be neceſſary to give our readers a clear and expeditious knowledge of all the various branches of theſe pleaſing recreations; as well as receipts from the different authors of eſtabliſhed reputation for the cure of moſt complaints incident to Horſes, Dogs, Swine, Cocks, &c. which in this edition is conſiderably enlarged; as well as the articles Hunting, Fiſhing, Fowling, &c. &c. with proper inſtructions for the moſt ignorant to prevent their being impoſed on in purchaſing Horſes, by deſigning Dealers in thoſe valuable animals; ſo as to render the work uſeful to the Farmer as well as the Sportſman, and to blend information with amuſement and profit with exerciſe.

THE

THE UNIVERSAL SPORTSMAN's DICTIONARY.

ABATE; a horſe is ſaid to abate, or take down, his curvets, when working upon curvets, he puts his two hind legs to the ground both at once, and obſerves the ſame exactneſs in all the times. *See* CURVET.

ABSCESS, proceeds from a blow, hurt, or ſome violence, incident to ſeveral animals, as horſes, ſheep, poultry, &c.

In HORSES, a cataplaſm or poultice of lime, reduced to a fine powder, and mixt with wine and oil in equal quantities, ought to be applied to the part affected; or one of wheat-flour, ſteeped in vinegar, with half an ounce of manna, may be uſed in its ſtead.

In SHEEP, the method is to open the tumour, in what part ſoever it is found, and after letting out the matter, to pour into the wound ſome melted pitch, and burnt ſalt powdered.

In POULTRY, they open the abſceſs with a pair of ſciſſars, preſſing out the corruption with their fingers; and then give them lettuce chopped ſmall, and mixed with bran ſteeped in water, and ſweetened with honey, to eat.

ABATURES, is ſoiling the ſprigs or graſs that a ſtag throws down in paſſing by.

ABERDIVINE, or BARLEY-BIRD, a ſmall finging-bird, not much unlike the Canary-bird.

ACCLOYED, ſignifies pricked. A horſe's foot, when pricked in ſhoeing, is ſaid to be accloyed.

ACHE, [in *horſes*] a pain in any part of the body; a diſeaſe that cauſes numbneſs in the joints, and proceeds from cold, taken upon hard and violent exerciſe or labour; for which there are ſeveral remedies.

ACOPUM, a fomentation to allay the ſenſe of wearineſs; alſo, a medicine for horſes, uſed for the ſame purpoſe, and prepared thus: Take half an ounce of caſtoreum, adraces two ounces, of bdellium half an ounce and half a quarter, opopannax an ounce, fox greaſe half an ounce, pepper an ounce, laſerpitium three quarters of an ounce, ammoniacum two ounces, pigeons dung as much, half an ounce of galbanum, one ounce and a quarter of nitre, three quarters of an ounce of ſpuma nitri, laudanum two ounces, pyrethum and bay-berries of each three quarters of an ounce, cardamum two ounces, rue ſeed two ounces, ſeed of agnus caſtus one ounce, parſley ſeed half an ounce, dried roots of flower-de-luce an ounce and quarter and half, oil of bay as much, oil of ſpikenard three quarters of a pound, oleum cyprinum fourteen ounces, the oldeſt olive oil a pound and half, pitch ſix ounces, turpentine four ounces; every one of them that will diſſolve, melt ſeparately by themſelves, then mingle them together with the reſt of the ingredients, firſt beating to fine powder; after they have boiled a little on the fire, take off the pan, and ſtrain the liquor into a clean gallipot, to be kept for uſe: in adminiſtering this medicine, give not above two ſpoonfuls at a time, in a pint of ſack or muſcadine wine, and if by long keeping it hardens, ſoften it with a little cypreſs oil.

It is both a medicine and an ointment, helping convulſions, ſtring-halts, colds, &c. in the ſinews and muſcles, draws forth all noiſome humours, and being put up the noſtrils of a horſe, by means of a long gooſe feather, anointed therewith, diſburdens the head of all grief.

It diſſolves the liver, troubled with all oppilations, or obſtructions, helps ſiccity and crudity in the body, baniſhes all wearineſs; and, laſtly, cures all ſorts of inward diſeaſes, if given by way of drench, in wine, beer, or ale.

ACTION, implies the motion of the various parts of a horſe in doing his paces.

ACTION OF THE MOUTH, is the agitation of the tongue, and the mandible of a horſe, that by champing upon the bridle, keep his mouth freſh. You may ſee

by the white ropy foam, that a horſe has the action of the mouth, which is a ſign of vigour, mettle, and health.

ACULER, a French word, uſed in the academies, importing that a horſe working upon volts in the manage, does not go far enough forwards at every time or motion, ſo that his ſhoulders embrace, or take in, too little ground, and his croupe comes too near the center of the volt.

This horſe has acule, becauſe the horſeman did not turn his hand, and put him on with the calf of the inner leg.

Horſes have a natural inclination to this fault, in making demi-volts. *See* VOLT.

When the Italians work a horſe upon the demi-volts, called repolons, they affect to make them acule, or cut ſhort. *See* ENTABLER, and REPOLON.

ADDER-STUNG, is ſaid of cattle when ſtung by adders, or hornets, or bit by a hedge-hog or ſhrew, for which complaint obſerve the following directions from Mr. LAWRENCE. In punctures from the ſtings of hornets, or waſps, or wounds by the tuſks of a boar, which laſt are apt to ſwell as if venom were really inſtilled: Waſh clean with warm ſoap ſuds, and anoint well ſeveral times a-day with warm ſallad oil. Emollient poultices, and fomentations with rue, wormwood, bay-leaves, rag-wood, and wood-aſhes. Heal with Ægyptiacum and brandy mixed. Saline phyſic, or nitrated water, if feveriſh ſymptoms ſupervene; or the internals, as hereafter recommended. The bite of a viper or eft, is of far worſe conſequence; not only the wounded part, but ſometimes the whole body, will be conſiderably ſwelled. Make a tight bandage above the wound, if upon a limb: enlarge the wound with a ſmall ſharp pointed cautery, avoiding the tendons, and keep it open as long as the venomous ſymptoms remain, with ſponge ſmeared with precipitate ointment, or orris-root prepared with Spaniſh flies. Rub in warm oil mixed with viper's fat, both to the wound and the ſwelled parts. Waſh with ſtrong vinegar, one pint; muſtard-ſeed, two ounces; mix. Stop cloſe a few hours, and ſtrain. Dreſs with warm Ægyptiacum, once or twice a-day. In ſome caſes bleeding is required. The following drink every night for a week. Venice treacle, one ounce; ſalt of hartſhorn, one drachm; cinnabar of antimony, half an ounce; ſweet oil, three ounces in warm ale. Drinks of wormwood, rue, and ſcordium. Scraped tin.

ADVANCER, one of the ſtarts or branches of a buck's attire, between the back antler and the palm.

To AFFOREST, is to turn land into foreſt; and, on the contrary, to DISAFFOREST, is to turn land from being foreſt to other uſes.

AGE OF AN HORSE. To know how old a horſe is, there are ſeveral outward characters; 1. his teeth, whereof he has in his head juſt forty; that is, ſix great wong teeth above, and ſix below on one ſide, with as many on the other, that make twenty-four, called *grinders;* then ſix above, and as many below, in the fore part of his mouth, termed *gatherers*, and making thirty-ſix; then four tuſhes on each ſide, named *bitt-teeth*, which make juſt forty. As mares uſually have no tuſks, their teeth are only thirty-ſix.

A colt is foaled without teeth; in a few days he puts out four, which are called pincers, or nippers; ſoon after appear the four ſeparaters, next to the pincers; it is ſometimes three or four months before the next, called corner teeth, puſh forth. Theſe twelve colt's teeth in the front of the mouth, continue, without alteration, till the colt is two years, or two years and a half old, which makes it difficult, without great care, to avoid being impoſed on during that interval, if the ſeller finds it his intereſt to make the colt paſs for either younger or older than he really is: the only rule you have then to judge by is his coat, and the hairs of his mane and tail. A colt of one year has a ſupple, rough coat, reſembling that of a water ſpaniel, and the hair of his mane and tail feels like flax, and hangs like a rope untwiſted; whereas a colt of two years has a flat coat, and ſtraight hairs, like a grown horſe.

At about two years and a half old, ſometimes ſooner, ſometimes later, according as he has been fed, a horſe begins to change his teeth. The pincers, which come the firſt, are alſo the firſt that fall; ſo that at three years he has four horſe's, and eight colt's teeth, which are eaſily known apart, the former being larger, flatter, and yellower than the other, and ſtreaked from the end quite into the gums.

Theſe four horſe pincers have, in the middle of their extremities, a black hole, very deep; whereas thoſe of the colt are round and white. When the horſe is coming four years old, he loſes his four ſeparaters, or middle teeth, and puts forth four others, which follow the ſame rule as the pincers. He hath now eight horſe's teeth, and four colt's. At five years old he ſheds the four corner, which are his laſt colt's teeth, and is called a horſe.

During this year alſo, his four tuſks (which are chiefly peculiar to horſe's) come behind the others; the lower ones often four months before the upper; but whatever may be vulgarly thought, a horſe that has the two lower tuſks, if he has not the upper, may be judged to be under five years old, unleſs the other teeth ſhew the contrary; for ſome horſes that live to be very old never have any upper tuſks at all. The two lower tuſks are one of the moſt certain rules that a horſe is coming five years old, notwithſtanding his colt's teeth may not be all gone.

Jockies and breeders, in order to make their colts ſeem five years old when they are but four, pull out their laſt colt's teeth; but if all the colt's teeth are gone, and no tuſks appear, you may be certain this trick has been played: another artifice they uſe, is to beat the bars every day with a wooden mallet, in the place where the tuſks are to appear, in order to make them ſeem hard, as if the tuſks were juſt ready to cut.

When a horſe is coming ſix years old, the two lower pincers fill up, and, inſtead of the holes above-mentioned, ſhew only a black ſpot. Between ſix and ſeven the two middle teeth fill up in the ſame manner; and between ſeven and eight the corner teeth do the like; after which it is ſaid to be impoſſible to know certainly the age of a horſe, he having no longer any mark in the mouth.

You

You can indeed only have recourſe to the tuſks, and the ſituation of the teeth, of which I ſhall now ſpeak.

For the tuſks you muſt with your finger feel the inſide of them, from the point quite to the gum. If the tuſk be pointed flat, and has two little channels within ſide, you may be certain the horſe is not old, and at the utmoſt only coming ten. Between eleven and twelve the two channels are reduced to one, which after twelve is quite gone, and the tuſks are as round within as they are without; you have no guide then but the ſituation of the teeth. The longeſt teeth are not always a ſign of the greateſt age, but their hanging over and puſhing forward, as their meeting perpendicularly, is certain token of youth.

Many perſons, whilſt they ſee certain little holes in the middle of the teeth, imagine that ſuch horſes are but in their ſeventh year, without regard to the ſituation the teeth take as they grow old.

When horſes are young, their teeth meet perpendicularly, but grow longer, and puſh forward with age: beſides the mouth of a young horſe is very fleſhy within the palate, and his lips are firm and hard: on the contrary, the inſide of an old horſe's mouth is lean both above and below, and ſeems to have only the ſkin upon the bones. The lips are ſoft and eaſy to turn up with the hand.

All horſes are marked in the ſame manner, but ſome naturally, and other, artificially. The natural mark is called *Begue*, and ſome ignorant perſons imagine ſuch horſes are marked all their lives, becauſe for many years they find a little hole, or a kind of void in the middle of the ſeparaters and corner teeth; but when the tuſks are grown round, as well within as without, and the teeth point forward, there is room to conjecture in proportion as they advance from year to year, what the horſe's age may be, without regarding the cavity above-mentioned.

The artificial manner is made uſe of by dealers and jockies who mark their horſes, after the age of being known, to make them appear only ſix or ſeven years old. They do it in this manner: they throw down the horſe to have him more at command, and, with a ſteel graver, like what is uſed for ivory, hollow the middle teeth a little, and the corner ones ſomewhat more; then fill the holes with a little roſin, pitch, ſulphur, or ſome grains of wheat, which they burn in with a bit of hot wire, made in proportion to the hole. This operation they repeat from time to time, till they give the hole a laſting black, in imitation of nature; but in ſpite of all they can do, the hot iron makes a little yelloviſh circle round theſe holes, like what it would leave upon ivory; they have therefore another trick to prevent detection, which is to make the horſe foam from time to time, after having rubbed his mouth, lips, and gums with ſalt, and the crumbs of bread dried and powdered with ſalt. This foam hides the circle made by the iron.

Another thing they cannot do, is, to counterfeit young tuſks, it being out of their power to make thoſe two crannies above mentioned which are given by nature; with files they make them ſharper or flatter, but then they take away the ſhining natural enamel, ſo that one may always know, by theſe tuſks, horſes that are paſt ſeven, till they come to twelve or thirteen.

2. See that the horſe be not too deep burnt of the lampaſs, and that his fleſh lie ſmooth with his bars; for if too deep burnt, his hay and provender will ſtick herein, which will be very troubleſome to him.

3. Look to his hoofs, which if rugged, and as it were ſeamed one over another; or if they be dry, full, and cruſty, or crumbling, it is a ſign of very old age; on the contrary, a ſmooth, moiſt, hollow, and well ſounding hoof, betokens youthfulneſs in him.

4. His eyes, which if round, full ſtaring, and ſtarting from his head, if the bits over them be filled, ſmooth, and even with the temples, and no wrinkles either about his brow, or under his eyes, then he is young; but, if otherwiſe, he has the contrary characters, and it is a ſign of old age.

5. His hair; for if a horſe that is of any dark colour, grows griſley only about his eye-brows, or underneath his mane, or any horſe of a whitiſh colour ſhould grow meannelled, with either black or red meannels all over his body, then both are ſigns of old age.

6. Laſtly, the bars in his mouth, which if great, deep, and in the handling rough and hard, ſhew he is old; but if they be ſoft, ſhallow, and gentle in the handling, he is young, and in a good ſtate of body; but if he has two fleſhy excreſcences on the under palate, it will hinder him from drinking.

The following particular remarks about their age, are taken out of M. DE SOLLEYSEL'S *Compleat Horſeman*.

1. When a horſe is two years and a half old, he has twelve foal-teeth, in the fore part of his mouth, and about that time, or ſoon after, four of them do fall, *viz.* two above and two below, in the very middle; though in ſome horſes, they do not fall till three years: in their ſtead four others appear, called *nippers* or *gatherers*, much ſtronger and larger than the foal teeth; and then he is commonly two years and a half old, or at moſt but three.

2. At three and a half, and ſometimes at four years, he caſts the next four foal-teeth, *viz.* two above and two below; and in their room come four teeth called *ſeparaters*.

There remain then but four foal-teeth in the corners, which he commonly changes at four years and a half: it is therefore neceſſary to keep in memory, two and a half, three and a half, and four and a half; that is to ſay, when a horſe has caſt two teeth above, and as many below, he is but two years and a half old; when he has caſt four teeth above, and as many below, he has attained to the age of three years and a half; and as ſoon as he has caſt ſix above, and as many below, which is to have them all changed, he is then come to four years and a half.

3. It is to be obſerved, that the corner teeth in the upper gums, are caſt before thoſe in the nether; on the contrary, the under tuſhes grow out before the upper; and horſes are often ſick when the tuſhes of the upper gums cut, but are never ſo, when the others below come forth.

4. The tuſhes are preceded by no foal-teeth, but

grow up when a horſe is about three years and a half o', and generally appear before the corner teeth are caſt.

So ſoon as the *gatherers* and *ſeparaters* have pierced and cut the gums, they make all their growth in fifteen days, but the corner teeth do not grow ſo ſuddenly: yet that does not hinder, but at their very firſt appearing, they are as thick and broad as the others, but are no higher than the thickneſs of a crown piece, and very ſharp and hollow.

5. When a horſe has no more foal-teeth, and his corner teeth begin to appear, he is in his fifth year; that is, he is about four years and a half, and is going in his fifth year.

When he firſt puts out his corner teeth, they are of equal height with the gums on the outſide, and the inſide of them is filled with fleſh, till he be near five; and when he comes to be five years old, that fleſh diſappears, and there will remain in the place of it a hollow: that is, they are not ſo high on the inſide as on the outſide, which they will come to be, about a year after their firſt appearing.

So that when a horſe's corner teeth are filled with fleſh, you may confidently affirm that he is not five.

6. From five to five and a half, the corner teeth remain hollow on the inſide, and that part which was filled with fleſh is empty.

7. From five and a half to ſix, the hollow on the inſide fills up, and the teeth become flat and equal at top, only a little cavity remains in the middle, reſembling the eye of a dry bean, and then they ſay the horſe is entering ſix.

And ſo long as a horſe's corner teeth are not ſo high on the inſide as the out, he is ſtill ſaid to be but five, tho' he be five and a half, and ſometimes ſix.

8. You may alſo take notice, that at four years and a half, when the corner teeth appear, and are filled on the inſide with fleſh, the outſide of them will then be about the thickneſs of a crown piece above the gums, and will ſo continue till five; and from thence to five and a half, the outward edge will be about the thickneſs of two crown pieces above the gums: at ſix they will be near the breadth of one's little finger above the gums, and his tuſhes will be at their full length.

At ſeven years they will be about the thickneſs of the ſecond or ring finger above the gums, and the hollow almoſt quite worn and gone.

9. At eight years old, the horſe will be raz'd; that is, none of his teeth will be hollow, but flat quite over, and near the thickneſs of the middle finger above the gums.

10. After a horſe is raz'd, one cannot judge of his age, but by the length of his fore-teeth, or by his tuſhes.

As the gums through time grow lean, ſo they make the teeth appear long; and it is certain that ſo much the longer a horſe's teeth are, he is ſo much the older; and as he grows old, his teeth appear rough and become yellow: not but that there are ſome old horſes who have very ſhort and white teeth; and people ſay of ſuch horſes, they have a good mouth conſidering their age.

Some alſo have a black ſpeck in their teeth, reſembling the true mark, a long time after they have paſſed eight or nine, but then it is not hollow.

11. The tuſhes are the moſt certain mark, whereby to know a horſe's age.

If a horſe be but ſix, the upper tuſhes will be a little channelled, or ſomewhat hollowed and grooved on the inſide; and when he is above ſix they fill up, and become a little round on the inſide.

This obſervation never or rarely fails.

If you feel the tuſhes of his upper jaw with your finger, and find them worn equal with the palate, the horſe is then at leaſt ten years old: this remark ſeldom proves deficient, unleſs the horſe when young has carried a bigger mouthed bitt than was proper for him.

Young horſes always have their under tuſhes ſharp and pointed, pretty long, ſomewhat edged on both ſides, and without any ruſt upon them; but as they become aged, their tuſhes grow big and blunt, round and ſcaly, and in very old horſes, they are extremely thick, round and yellow.

12. A horſe is ſaid to be *ſhell-toothed* when he has long teeth, and yet black ſpecks in them, and this mark laſts during life; it is eaſily known, becauſe the mark appears in the other fore teeth as well as in the corner teeth.

13. In advanced age, the points of the *gatherers* ſtand outward a little; and when the horſe is extremely old, they point almoſt ſtraight forward; but while he is young, they ſtand almoſt ſtraight up, and are juſt equal with the outer edges of thoſe above.

Sometimes the upper teeth point forwards in this manner; but for the moſt part the under do it.

14. After the mark is gone, recourſe may be had to the horſe's legs, to know whether they be neat and good; to his flank if it be well truſſed, not too full or ſwallowed up: as alſo to his feet and his appetite.

15. In young horſes, that part of the nether-jaw bone which is three or four fingers breadth above the beard, is always round, but in old horſes ſharp and edged; ſo that a man who is accuſtomed to it, will before he opens a horſe's mouth, judge pretty near of his age. This is a good remark.

16. Some pull the ſkin of the nether-jaw bone or ſhoulder a little to them, and if the ſkin continue long without returning to it's place, it is a ſign, they ſay, the horſe is not young; and the longer it is in returning, the older he is: a man ſhould not truſt much to this obſervation, becauſe the ſkin of a lean horſe, though young, will be longer to it's place than the ſkin of an old horſe that is fat and plump.

17. You may alſo judge of a horſe's age by looking on his palate; becauſe as he grows old, the roof of his mouth becomes leaner and drier towards the middle; and thoſe ridges which in young horſes are pretty high and plump, diminiſh as they increaſe in age; ſo that in very old horſes, the roof of the mouth is nothing but ſkin and bone.

This remark is good, eſpecially in mares that ſeldom have any tuſhes to know their age by.

18. Grey horſes become white as they grow old, and when very aged white all over, yet it is not to be inferred from thence that no horſes are foaled white; though

though it happens but very rarely: however thoſe that are foaled grey, are known by their knees and hams, which, for the moſt part, ſtill continue of that colour.

19. If you do not require exactneſs, but only to know whether the horſe be young or old, lift up the upper lip; and if his upper teeth be long, yellow, and over-paſſing thoſe below, it denotes age; as the contrary ſigns, *viz.* ſhort and white teeth, and the teeth of the upper jaw not over-paſſing thoſe below, betoken youth.

20. There are ſome ſort of horſes, whoſe teeth always continue white and ſhort, as if they were but ſix years old.

To prevent being cheated, obſerve if there be any ſcratches on the outſide of the hollows of the teeth, becauſe the graver ſometimes ſlips and ſcratches the other parts of the teeth; for then you may conclude him counter-marked; and an artificial hollow, is much blacker than a natural one: take notice alſo of his upper tuſhes; the inſide of which ſhould be grooved or hollow, till the horſe be ſeven years old: and farther, obſerve whether he has any ſigns of age, ſuch as the upper teeth long, over-paſſing thoſe below, and yellow; the lower part of the nether-jaw-bone, ſharp and edged; the under tuſhes worn, big and ſcaly; if he have theſe tokens, and yet appear marked, it is very probable that he is counter-marked. For other particulars; ſee *Seeling, and Teeth of a horſe.*

As to a *hunting, or race horſe*, he ought to be five years old, and well weighed before you begin to hunt him.

For tho' it be a frequent cuſtom among noted horſemen to train their horſes up to hunting at four years old, and ſome ſooner, yet at that age his joints not being full knit, nor he come to his beſt ſtrength and courage, he is diſabled from performing any matter of ſpeed and toughneſs; and indeed put to ſore labour and toil ſo young, he runs very great hazard of *ſtrains*, and the putting out of *ſpients*, *ſpavins*, *curbs*, and *wind-galls*; beſides the daunting of his ſpirit, and abating his natural courage, inſomuch that he will become melancholy, ſtiff, and rheumatic, and have all the diſtempers of *old age*, when it might be expected he ſhould be in his *prime*.

AGE OF A HART, is judged by the furniture of his head.—At a year old, there is nothing to be ſeen but bunches.—At two years old the horns appear more perfectly, but ſtraighter and ſmaller.—At three they grow into two ſpars; at four into three; and ſo increaſe yearly in branches, till they are ſix years old; after which their age is not with any certainty to be known by their head. The huntſmen have ſeveral other marks, whereby to know an old hart without ſeeing him; particularly the ſlot, entries, abatures, ſoils, ſewnets, gate, and fraying poſt.

AGE OF NEAT CATTLE, *viz.* the *ox*, *cow*, and *bull*, is known by their teeth and horns. At the end of ten months they ſhed their firſt fore-teeth, which are replaced by others larger, but not ſo white; and in three years all the inciſive teeth are renewed. Theſe teeth are at firſt equal, long, and white; but as the animals advance in years, they wear, become unequal, and black. They alſo ſhed their horns at the end of three years; and theſe are replaced by other horns, which like the ſecond teeth, continue. The growth of theſe horns is not uniform; at firſt, or in the fourth year of the animal's age, two ſmall pointed horns make their appearance, neatly formed, ſmooth, and toward the head terminated by a kind of a button. In the following year this button moves from the head, being impelled by a horny cylinder, which lengthening in the ſame manner, is alſo terminated by another button, and ſo on, for theſe horns continue growing as long as the animal lives. Theſe buttons become annular joints; which are eaſily diſtinguiſhed in the horn, and by means of which the age of the animal may be eaſily known; counting three years for the point of the horn, and one for each of the joints.

AGE OF SHEEP. Theſe animals in the ſecond year have two broad teeth; in their third year they have four broad teeth before; in their fourth year ſix broad teeth; and, in their fifth year eight of the ſame kind; after which their age cannot certainly be known in this way.—But the age of the ram, and horned ſheep, may be always known by their horns, which ſhew themſelves in the firſt year, and often at the birth, and continue to grow a ring annually to the laſt period of their lives.

AGE OF GOATS, is known by the ſame tokens as that of the ſheep.

AGIST, properly a bed, or reſting place; whence to agiſt, ſignifies to take in and feed the cattle of ſtrangers in the king's foreſt, and to gather money due for the ſame.

AGISTOR, an officer that takes in cattle of ſtrangers to feed in a foreſt, and receives for the king's uſe ſuch tack-money as becomes due upon that account.

In Engliſh they are otherwiſe called Guſt-takers, or Giſt-takers, and make by letters patent to the number of four, in every foreſt where his majeſty has any pannage.

AID; to aid, aſſiſt, or ſuccour a horſe, is to ſuſtain and help him to work true, and mark his times or motions with a juſt exactneſs. Hence they ſay,

Aſſiſt your horſe with the calves of your legs, help him with a nice tender heel, aid him with your tongue: it is not enough to aid this horſe with the rod, he muſt have harſher aids.

Aids are the helps or aſſiſtance that the horſeman gives from the gentle and moderate effects of the bridle, the ſpur, the caveſon, the poinſon, the rod, the action of the legs, the motion of the thighs, and ſound of the tongue.

We give theſe aids to prevent the correction and chaſtiſement that is ſometimes neceſſary in breaking and managing a horſe.

You will never ride well unleſs you be very attentive and active, without precipitancy, in not loſing or miſſing your times, and in giving the aid ſeaſonably, for without that you will accuſtom your horſe to doſe upon it. If your horſe does not obey the aids of the calves of your legs, help him with the ſpur, and give him a prick or two.

This ſorrel horſe has his aids very nice; that is, he takes

takes them with a great deal of facility and vigour:—this gentleman gives his aids very fine, that is, he imitates and rouzes up the horſe ſeaſonably, and helps him at juſt turns, in order to make him mark his time or motions juſtly.—The barb knows the aid; he obeys or anſwers the aids, he takes them finely.—You do not give the aids of the caveſon with diſcretion; you make a correction of them, which will baulk your horſe. See *Brouiller.*

INNER AIDS, OUTER AIDS. The inner heel, inner leg, inner rein, &c. are called inner aids; the outer heel, outer leg, outer rein, &c. are called outer aids. *See* HELPS.

AIR, is a cadence and liberty of motion, accommodated to the natural diſpoſition of the horſe, which makes him work in the manage and riſe with obedience, meaſure, and juſtneſs of time. Some riding-maſters take the word Air in a ſtrict ſenſe, as ſignifying the manage that is higher, ſlower, and more artful or deſigned than the *terra a terra*; but others give it a larger ſignification, including under that ſenſe, *a terra a terra*; for if a horſe manages well in *a terra a terra*, they ſay the horſeman has happily hit the air of the horſe; in general the walk, trot, and gallop, are not accounted airs, and yet ſome very good riding-maſters would underſtand by air, the motion of the horſe's legs upon a gallop. For inſtance, they will ſay ſuch a horſe has not the natural air; that is, he bends his fore-legs too little; you ſhould give or form an air to your horſe, for he has no natural air, and ſince his haunches are very good he is capable of the manage, if you do but learn him an air.

All your horſes have an air naturally; that is, they have motion enough with their fore-legs to take a cadence, if they are put to work at *terra a terra*:—this horſe always takes his leſſon with his own air:—fix or confirm that horſe in the air he has taken:—this ſorrel takes the air of the curvets, but that preſents himſelf with an air caprioles:—this mare has no inclination nor diſpoſition to theſe airs: are terms uſed in the manage. See PESATE.

High airs, or high manage, are the motions of a horſe that riſes higher than *terra a terra*, and works at curvets, balotades, croupades, and caprioles. In regard that horſe has the beginning or firſt ſteps of raiſed airs, and of himſelf affects a high manage, you ought to uſe this his diſpoſition diſcreetly, that he may not be diſheartened or baulked; for your high airs make a horſe angry when he is too much put to it; and you ought to ſupply his ſhoulders very well before you put him to leap. *See* PESATE and LEAPING.

AIRING OF HORSES. Airing brings ſeveral advantages to horſes.

Firſt, It purifies their blood, (if the air be clean and pure) it purges the body from many groſs and ſuffocating humours, and ſo hardens and enſeams a horſe's fat, that it is not near ſo liable to be diſſolved by ordinary exerciſe.

Secondly, It teaches him how to let his wind take equally, and keep time with the other actions and motions of his body.

Thirdly, It ſharpens the appetite, and provokes the ſtomach, (which is of great advantage both to *Gallopers* and *Hunters*, which are apt to loſe their ſtomach either through exceſs or want of exerciſe;) for the ſharpneſs of the air will drive the horſe's natural heat from the outward to the inward parts, which heat, by furthering concoction, creates an appetite.

MARKHAM directs, if a horſe be very fat, to air him before *ſun-riſe*, and after *ſun-ſetting*; and another author ſays, that nothing is more wholeſome than early and late airings: others again do not approve of this, and urge, that as all things that any ways hinder the ſtrength and vigour of nature are to be avoided; now that extremity of cold, and being out early and late do ſo, is evidently ſeen by horſes that run broad all winter, which however hardly bred and kept with the beſt care and fodder, yet cannot by any means be advanced to ſo good caſe in winter, as an indifferent paſture will raiſe them to in ſummer: and as this holds true of nocturnal colds, it muſt needs be verified in ſome proportionate meaſure of the morning and evening dews, and that piercing cold which is obſerved to be more intenſe at the opening and cloſe of the day, than any part of the night.

Beſides that, the dews and moiſt rimes do as much injury to a horſe as the ſharpeſt colds or froſts, and if a horſe is any ways inclinable to *catarrhs*, *rheums*, or any other cold diſtempers, he is apt to have the humours augmented, and the diſeaſe ſenſibly increaſed by theſe early and late airings.

But if he be not had forth to air till the ſun be riſen, it will chear his ſpirits; and it is ſeen that all horſes love the ſun's warmth, as in thoſe that lie out a-nights, who will repair to thoſe places where they can have moſt benefit of the beams of the ſun, after he is riſen, to relieve them from the coldneſs of the preceding night.

And beſides the benefit of the ſun, the air will be more mild and temperate, as that it will rather invigorate than prey upon his ſpirits, and more increaſe his ſtrength than impair it.

And as for bringing down a horſe's fat, we need not be at a loſs for that, and to keep him from being purſive, and too high in fleſh, to reduce him to cleanneſs, and a more moderate ſtate of body: for it is but keeping him out ſo much longer at a time, both morning and evening, and you will undoubtedly obtain your end by ſuch long *airing*, joined with true ſound heats; and it is from the length of airings that you muſt expect to bring your horſe to a perfect wind and true courage.

Mr. LAWRENCE ſays, no arguments can be required by readers of common ſenſe, in ſupport of the neceſſity of EXERCISE for horſes kept within doors; that is to ſay, out of their natural ſtate, in order to preſerve them in health, or in apt condition for labour; all that remains is to remind men of the duty, to deſcribe its moſt advantageous method, and due portion. In truth, it is a buſineſs in general either totally neglected, or conducted upon very erroneous principles.

Exerciſe is two-fold, either calculated for common occaſions, and the mere preſervation of health, or for the purpoſe of fitting a horſe to undergo extraordinary exertions. The firſt intent may be fully anſwered by

WALKING

WALKING EXERCISE alone, and I can, from long experience, aſſure thoſe keepers of coach and road-horſes, who ſend their boys out to rattle and flurry them over the hard ground, and even the ſtones of the metropolis, by way of ſalutary exerciſe, that they are miſerably wide of their mark; but the abſurdity of the fact is dreadful indeed, when we know that even ſinew-ſtrained, groggy, and foundered horſes, are *exerciſed* in exactly the ſame mode, and often up and down the ſtony mews in the metropolis.

This is to add to the miſchiefs of real labour, inſtead of imparting the benefits of recreation; and horſes which are hot and choleric, are materially injured in temper and appetite, by the ill-judged and boiſterous exerciſe of ordinary ſtable-lads. Nobody will ſuppoſe theſe remarks are intended to apply to regular grooms, and convenient grounds. Where the caſe is otherwiſe, a horſe may be kept in fine condition by regular and faſt walking, beſides being by ſuch means trained to that excellent pace. Two hours a day, either at once or twice, will be commonly ſufficient; otherwiſe four hours, and what more the horſe may demand, the owner had infinitely better perform himſelf, than intruſt it to his ſervants. Few perſons but thoſe acquainted with the tactics of regular ſtables, have adequate ideas of the efficacy of walking exerciſe, in keeping down fleſh, opening the lungs, and facilitating muſcular action. I have heard of a horſe which ran three four-mile heats over the ſands of Leith, without having previouſly had a ſingle canter.

The in-door exerciſe of the looſe-ſtable has been adverted to, that abroad in the paddock, or encloſed yard, is admirable, where a horſe may be daily turned out, the weather permitting, with or without his ſheet, as he has been accuſtomed, with the happieſt effects to his limbs and fleſh. Unſound or ſhaken horſes ſhould never be permitted to exerciſe themſelves, but where convenience admits not, they ought to be led, never ridden, on any ſtupid or indolent pretence whatever.

AIRY, or AERY, a term uſed to expreſs the reſt of a hawk or eagle.

ALMOND TUMBLER, a pigeon well known by that name among fancyers, though many call it the ermine tumbler. It was originally bred from the common tumbler, which in ſhape and make it reſembles very much. It is eſteemed by the generality of fancyers, the moſt beautiful of the pigeon tribe. The greater the variety of colours in the flight and tail, particularly if the ground is of a bright yellow colour, the greater is its value; for thoſe of a fine yellow ground are by far the hardeſt to acquire, and if the tail is ſomewhat tinged with black, it is an additional beauty. There are ſome of theſe pigeons that have a mixture of three colours only, yellow, white, and black, but theſe are by no means common. The almond tumbler does not arrive to the meridian of its beauty, till it has ſeveral times moulted, but when it is very old, changes to a mottled, ſplaſhed, or ſome other colour. The moſt approved fancyers adviſe the matching of a yellow, a ſplaſhed, or black grizzle, with an almond, and by that means heighten the colours; thoſe of a black colour bred from almonds, are much better ſhaped about the head and beak than the almonds themſelves, and the tail is frequently handſomer by having a ſtrong glow of yellow; this kind matched with an almond will produce handſome birds. They often produce a pale yellow or buff, and this is an excellent colour to match with ſuch as are very high grounded. However carefully and well bred theſe pigeons may be, a faint mixture of aſh or blue will ſometimes appear, which is conſidered rather a defect.

AMBLING; a motion in a horſe that is much deſired, very uſeful, but not eaſily to be obtained the right way, notwithſtanding the vain confidence of the various profeſſors of it, who, tho' they ſo boldly aſſert the ſucceſs, yet differ in their methods to effect it: for ſome will teach it in new ploughed fields; others will teach a horſe to amble from the gallop; many uſe no better way for it than by weights.

Some amble in hand, not ridden; others by the help of thinner ſhoes, made on purpoſe: many fold fine ſoft liſts about the gambrels of the horſe; ſome amble by the hand only, others uſe the tramel, which indeed if rightly managed is good: but the beſt way of all is to try with your hands, by a gentle and deliberate racking and thruſting of the horſe forward, by helping him in the weak part of the mouth with your ſnaffle, which muſt be ſmooth, big, and full; and correcting him firſt on one ſide, then on another, with the calves of your legs, and ſometimes with a ſpur.

If you can make him of himſelf fall into an amble, though ſhuffling diſorderly, there will be much labour ſaved; for that aptneſs to amble will make him, with more eaſe and leſs danger in the uſe of the tramel, find the motion without ſtumbling or amazement; but if you find he will by no means either apprehend the motions or intentions, then ſtruggle not with the animal, but fall to the uſe of the tramel, which ſee for that purpoſe under TRAMEL. *See Rules for Buying Horſes.*

AMPHIBIOUS ANIMALS, are ſuch as live partly on the land and partly in the water, as badgers, otters, ducks, &c.

ANBURY, or AMBURY, a kind of wen, or ſpungy wart, growing upon any part of a horſe's body, full of blood; the manner of curing of which, is to tie it about hard with a thread, or rather with a horſe-hair, and in eight days it will fall off, then ſtrew upon it the powder of verdigreaſe to kill it at the root, and heal it up again with green ointment; but if it be ſo flat that nothing can be bound about it, then take it away with an inciſion-knife cloſe to the ſkin, or elſe burn it with a ſharp hot iron, cutting it round about ſo deep as to leave none of the root behind; and after having applied turpentine and hog's lard melted together, heal it up as before: but if this wart grows in a ſinewy part, where a hot iron is improper, eat out the core with oil of vitriol, or white ſublimate, then ſtop the hole with flax dipt in the white of an egg, for a day or two, and at laſt dry it up with unſlaked lime and honey.

Or, for theſe warts put 3 ounces of powder of copperas in a crucible, with 1 ounce of arſenic powdered; place the crucible in the middle of a charcoal fire, ſtirring the ſubſtance, but carefully avoid the malignant ſteams; when the matter appears ſomewhat reddiſh, take

take the crucible off the fire, and after it is cool, break and beat the matter into a very fine powder, incorporate 4 ounces of this powder with 5 ounces of album raſis, and make an ointment to be applied cold to warts, anointing them lightly every day, and they will fall off like kernels of nuts, without cauſing any ſwellings in the legs, if the application be ordered ſo as only the warts be anointed, and the horſe be not worked or ridden during the cure: and after the warts fall off, dreſs the ſore with the Counteſs's ointment; which ſee deſcribed under its proper head.

ANGLING, is an art, which as it pleads great antiquity, ſo the knowledge thereof is with much difficulty to be obtained; but ſome obſervations concerning it will not be amiſs. And firſt, the angler muſt remember by no means to fiſh in light and dazzling apparel, but his cloathing muſt be of a dark ſky colour: and at the places where he uſes to angle, he ſhould once in four or five days caſt in corn boiled ſoft; if for carp or tench, oftener: he may alſo caſt in garbage, beaſts livers, worms chopt in pieces, or grains ſteeped in blood and dried, which will attract the fiſh thither: and in fiſhing, to keep them together, throw in half a handful of grains of ground malt, which muſt be done in ſtill water; but in a ſtream you muſt caſt your grains above your hook, and not about it, for as they float from the hook, ſo will they draw the fiſh after them. Now if you would bait a ſtream, get ſome tin boxes made full of holes no bigger than juſt fit for a worm to creep through, which fill therewith, and having faſtened a plummet to ſink them, plunge them into the ſtream, with a ſtring faſtened thereto, that they may be drawn out at pleaſure; by the ſmallneſs of the holes aforeſaid, the worms can crawl out but very leiſurely, and as they crawl the fiſh will reſort about them.

Now if in a ſtream you would bait for ſalmon, trout, umber, or the like, take ſome blood, and therewith incorporate fine clay, barley and malt, ground, adding ſome water, all which make into a paſte with ivy gum, then form it into cakes and caſt them into the ſtream: if you find your bait take no effect in attracting of the fiſh, you may conclude ſome pike or perch lurk there to ſeize their prey, for fear of which the fiſh dare not venture thereabout; take therefore your troll, and let your bait be either brandlings or lob-worms, or you may uſe gentles or minows, which they will greedily ſnap at.

As for your rod, it muſt be kept neither too dry nor too moiſt, leſt the one make it brittle, and the other rotten; and if it be ſultry dry weather, wet your rod a little before you angle, and having ſtruck a good fiſh, keep your rod bent, and that will hinder him from running to the end of the line, whereby he will either break his hold or hook: and if you would know what bait the fiſh loves beſt, at the time of your fiſhing, when you have taken one, ſlit the gill, and open and take out the ſtomach, opening it without bruiſing, and there you will find what he fed on laſt, and had a fancy to, whereby you may bait your hook accordingly.

When you fiſh, ſhelter yourſelf under ſome buſh or tree, ſo far from the brink of the river, that you can only diſcern your float; for fiſh are timorous, and very eaſy to be affrighted: and you will experimentally find the beſt way of angling with a fly, is down the river, and not up; neither need you ever to make above ſix trials in a place, either with fly or ground bait, when you angle for trout, for by that time he will either offer or take, or refuſe the bait, and not ſtir at all; but if you would have fiſh bite eagerly, and without ſuſpicion, you may preſent them with ſuch baits as they are naturally inclined to, and in ſuch manner as they are accuſtomed to receive them; and if you uſe paſtes for baits, you muſt add flax or wool, with which mix a little butter to preſerve it from waſhing off the hook: and laſtly, obſerve,

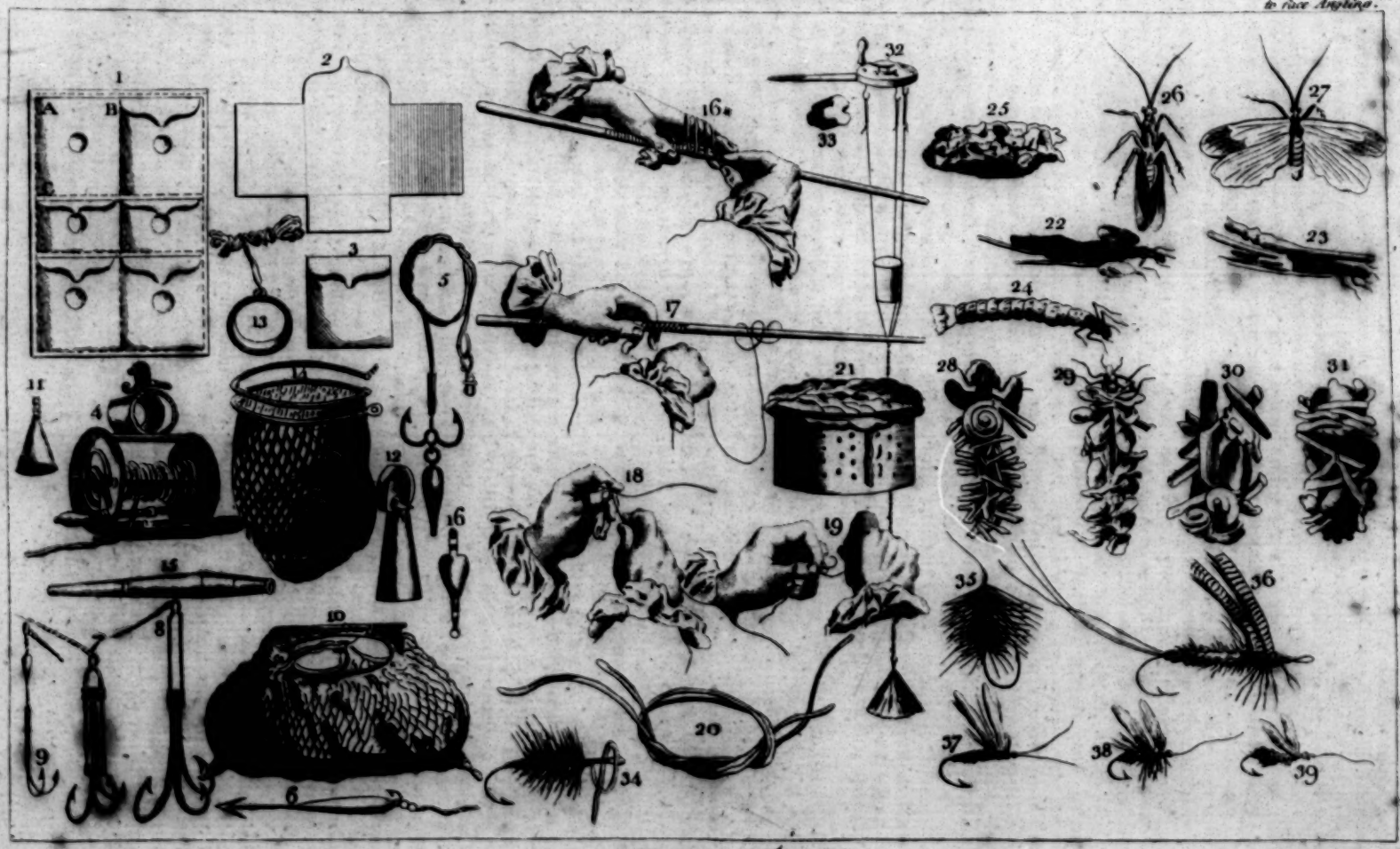
That the eyes of ſuch fiſhes as you kill, are moſt excellent baits on the hook for almoſt all ſorts of fiſh.

Directions for FLY-FISHING, *with a Liſt of ſuch neceſſary Ingredients as every* ANGLER *ſhould be ſupplied with.*

Firſt, let your rod be light, and very gentle, the beſt are of two pieces, (See the article ROD) and let not your line exceed, (eſpecially for three or four links next to the hook) three or four hairs at the moſt, though you may fiſh a little ſtronger above in the upper part of your line: but if you can attain to angle with one hair, you ſhall have more riſes and catch more fiſh. You muſt be ſure not to cumber yourſelf with too long a line, as moſt do: and before you begin to angle, endeavour to have the wind on your back, and the ſun, if it ſhines, to be before you, and to fiſh down the ſtream; and carry the point or top of your rod downward, by which means the ſhadow of yourſelf and rod will be the leaſt ſeen by the fiſh; for the ſight of any ſhade alarms the fiſh, and ſpoils your ſport, of which you muſt take great care. In the middle of *March*, till which time a man ſhould not catch a trout, or in *April*, if the weather be dark, or a little windy or cloudy, the beſt fiſhing is with the palmer-worm, but of theſe there are divers kinds, or at leaſt of divers colours; theſe and the *May*-fly are the ground of all fly-angling, which are to be thus made:

Firſt, you muſt arm your hook with the line in the inſide of it, then take your ſciſſars, and cut ſo much of a brown mallard's feather as in your own reaſon will make the wings of it, you having withal regard to the bigneſs or littleneſs of your hook; then lay the outmoſt part of your feather next to your hook, then the point of your feather next the ſhank of your hook; and having ſo done, whip it three or four times about the hook with the ſame ſilk with which your hook was armed; and having made the ſilk faſt, tack the hackle of a cock or capon's neck, or a plover's top, which is uſually better; take off the one ſide of the feather, and then take the hackle, ſilk, or crewel, gold or ſilver thread, make theſe faſt at the bent of the hook; that is to ſay, below your arming; then you muſt take the hackle, the ſilver or gold thread, and work it up to the wings, ſhifting or ſtill removing your finger, as you turn the ſilk about the hook: and ſtill looking at every ſtop or turn, that your gold, or what materials ſoever you make your fly of, do lie right and neatly;

and



Angling Tackle.

and if you find they do ſo, when you have made the head, make all faſt: then work your hackle up to the head, and make that faſt; and with a needle or pin divide the wing into two, with the arming ſilk whip it about croſs ways betwixt the wings, and with your thumb you muſt turn the point of the feather towards the bent of the hook, and work three or four times about the ſhank of the hook, view the proportion, and if all be neat and to your liking, faſten.

Indeed, no direction can be given to make a man of a dull capacity able to make a fly well; and yet this, with a little practice, will help an ingenious angler in a good degree: but to ſee a fly made by an artiſt in that kind, is the beſt teaching to make it; and then an ingenious angler may walk by the river ſide, and mark what flies fall on the water that day, and catch one of them, if he ſees the trout leap at a fly of that kind: having always hooks ready hung, with him, and having a bag alſo always with him, with bear's hair, or the hair of a brown or ſad-coloured heifer, hackles of a cock or capon, ſeveral coloured ſilks, and crewel to make the body of the fly, the feathers of a drake's head, black or brown ſheep's wool, or hog's wool, or hair, thread of gold and of ſilver; ſilk of ſeveral colours, eſpecially ſad-coloured, to make the fly's head; and there be alſo other coloured feathers, both of little birds and of ſpeckled fowl; having thoſe with him in a bag, and trying to make a fly, though he miſs at firſt, yet ſhall he at the laſt hit it better, even to ſuch a perfection, as none can well teach him; and if he hit to make his fly right, and have the luck to hit alſo where there is ſtore of trouts, a dark day, and a right wind, he will catch ſuch numbers of them, as will encourage him to grow more and more in love with the art of fly-making.

Not having particularly enumerated the materials neceſſary for fly-making, it will not be improper, once for all, to do it. Firſt, you muſt be provided with bear's hair of divers colours; as grey, dun, light and dark coloured, bright brown, and that which ſhines: alſo camel's hair, dark, light, and of a colour between both: badger's hair, or fur: ſpaniel's hair from behind the ear, light and dark brown, blackiſh and black: hog's down, which may be had, about Chriſtmas, of butchers, or rather of thoſe that make brawn; it ſhould be plucked from under the throat, and other ſoft places of the hog, and muſt be of the following colours, *viz.* black, red, whitiſh, and ſandy; and for other colours, you may get them dyed at a dyer's; ſeal's fur is to be had at the trunk-makers; get this alſo dyed of the colours of cow's and calf's hair, in all the different ſhades, from the light to the darkeſt brown; you will then never need cow's or calf's hair; both which are harſh, and will never work kindly, nor lie handſomely: get mohairs, black, blue, purple, white, violet; Iſabella, which colour is deſcribed as of a bright gold colour purple: philomot, from *feuille morte*, a dead leaf, yellow and orange: camlets, both hair and worſted, blue, yellow, dun, light and dark brown, red violet, purple, black, horſe-fleſh, pink, and orange colours. Some recommend the hair of abortive colts and calves; but ſeal's fur, dyed as above, is much better.

A piece of an old Turkey carpet will furniſh excellent dubbing, untwiſt the yarn, and pick out the wool, carefully ſeparating the different colours, and lay it by.

Some uſe for dubbing barge ſail, concerning which the reader is to know, that the ſails of weſt-country and other barges, when old, are uſually converted into tilts, under which there is almoſt a continual ſmoke ariſing from the fire and the ſteam of the beef-kettle which all ſuch barges carry, and which, in time, dyes the tilt of a fine brown; this would be excellent dubbing, but that the material of theſe ſails is ſheep's wool, which ſoaks in the water, and ſoon becomes very heavy: however, get of this as many different ſhades as you can, and have ſeal's fur and hog-wool, dyed to match them; which, by reaſon they are more turged, ſtiff, and light, and ſo float better, are in moſt caſes to be preferred to worſted, crewels, and, indeed, to every other kind of wool; and obſerve that the hog wool is beſt for large, and the ſeal's fur for ſmall flies.

Get alſo furs of the following animals, *viz.* the ſquirrel, particularly from his tail; fox cub, from the tail where it is downy, and of an aſh-colour; an old fox, an old otter, otter cub, badger, fulimart, or filmart; a hare, from the neck, where it is of the colour of withered fern; and, above all, the yellow fur of the martern, from the gills or ſpots under the jaws. All theſe, and almoſt every other kind of fur, are eaſily got at the furrier's.

Hackles are a very important article in fly-making: they are the long ſlender feathers that hang from the head of a cock down his neck; there may alſo be fine ones got from near his tail; be careful that they are not too rank, which they are when the fibres are more than half an inch long; and for ſome purpoſes theſe are much too big: be provided with thoſe of the following colours, *viz.* red, dun, yellowiſh, white, orange, and perfect black, and whenever you meet, alive or dead, with a cock of the game-breed, whoſe hackle is of a ſtrong brown-red, never fail to buy him; but obſerve that the feathers of a cock chicken, be they ever ſo fine for ſhape and colour, are good for little; for they are too downy and weak to ſtand erect after they are once wet, and ſo are thoſe of the Bantom cock.

Feathers are abſolutely neceſſary for the wings, and other parts of flies; get therefore feathers from the back and other parts of the wild mallard, or drake, the feathers of a partridge, eſpecially thoſe red ones that are in the tail: feathers from a cock pheaſant's breaſt and tail, the wings of a blackbird, a brown hen, of a ſtarling, a jay, a land-rail, throſtle, a fieldfare, and a water coot; the feathers from the crown of the pewit, plover, or lapwing; green and copper-coloured peacock's and black oſtrich herle; feathers from a heron's neck and wings; and remember, that in moſt inſtances, where the drake's or wild mallard's feather is hereafter directed, that from a ſtarling's wings will do much better, as being of a finer grain, and leſs ſpungy.

Be provided with marking ſilk of all colours, fine but very ſtrong, flaw ſilk, gold and ſilver flatted wire or twiſt, a ſharp knife, hooks of all ſizes, hog's briſtles for loops to your flies, ſhoemaker's wax, a large needle to raiſe your dubbing when flatted with working, and a ſmall but ſharp pair of ſciſſars.

And laſtly, if any materials required in the ſubſequent liſt of flies may have been omitted in the foregoing catalogue, be careful to add them to your former ſtock, as often as you ſhall find any ſuch omiſſions.

Remember, with all your dubbing, to mix bear's hair and hog's wool, which are ſtiff, and not apt to imbibe the water, as the fine furs, and moſt other kind of dubbing do: and remember alſo, that martern's fur is the beſt yellow you can uſe.

The uſe of a bag is attended with many inconveniences, of which, the mixing and waſting your materials are not the leaſt: to prevent which the following method is recommended: take a piece of fine grained parchment, of ſeven inches by nine, and fold it ſo that the ſize and proportion of it will be that of a ſmall octavo volume; then open it, and through the firſt leaf, with a ſharp penknife and ruler, make three croſs cuts, at the ſame proportionable diſtance as thoſe in Fig. 1, in the *Plate* of FISHING INSTRUMENTS, and with a needle and ſilk ſtitch the two leaves together, as in that figure; let each of the margins be half an inch at leaſt.

Then with a pair of compaſſes, take the diſtance from A to B, and ſet it in the middle of a ſmall piece of parchment; and likewiſe ſet on the ſame diſtance to the right and left, and at each extremity cut off, with a penknife and ruler, the ſpare parchment, obſerving that the ſides are exactly parallel.

At about a quarter of an inch from the top, make a cut through the firſt and third diviſions, and, with a pair of ſciſſars, ſnip out the looſe pieces.

Then ſet on the diſtance from A to C, and cut as before, leaving the middle diviſion an inch longer at bottom than the others: when this is done, your parchment will have the ſhape and proportion of Fig. 2. and you may cut the upper flap as it appears there.

Be careful that the cuts, and indeed all your work, are exactly ſquare; and when this is done, turn in the ſides and ends of the parchment, ſo cut as before, and preſs the folds with a folding-ſtick, and you have one pocket, ſhaped as Fig. 3. which put into the firſt partition.

Purſue the ſame method with the ſame pockets, and thoſe for the other partitions; and in this manner proceed till you have completed ſix leaves, which are to make the firſt of your book; the larger of theſe pockets are to hold hog's wool, ſeal's fur, and bear's hair, and the ſmaller the finer furs; which are thoſe of the martern, fox cub, *&c.*

In each of the ſix diviſions, in every leaf, with a ſadler's hollow punch, make a hole; to which end take a thin narrow ſtick of beach, or any hardiſh wood, and when the pocket is in its place, put the ſtick down into the pocket, and, obſerving the center of the diviſion, give the punch a ſmart blow with a mallet; theſe holes will ſhew what is contained in each of the pockets.

The next leaf may be ſingle; ſtitch it acroſs with double ſilk diagonally, and croſs thoſe ſtitches with others, and the ſpaces will be of a lozenge-ſhape; let the ſtitches be half an inch in length; into theſe you are to tuck your dubbing, when mixed ready for uſe.

The next leaf ſhould be double, ſtitched with a margin as the others; and through the firſt fold cut a lozenge, as big as the ſize will allow of; into this you may tuck three or four wings of ſmall birds, as the ſtarling, land-rail, throſtle, *&c.* At the back of this leaf ſew two little parchment ſtraps, of half an inch wide, very ſtrong; through which put a ſmall, but very neat and ſharp pair of ſciſſars.

You may, on another ſingle leaf, make four or five croſs bars of long ſtitches, through which, as well on the back, as the foreſide, you may put large feathers, namely, thoſe of a cock pheaſant's tail, a ruddy brown hen, *&c.*

The next three leaves ſhould be double; ſtitch them through the middle, from ſide to ſide, and with the compaſſes deſcribe a circle of about an inch and half diameter; cut out the parchment within the circle; under ſome of the margins, when the leaves are ſtitched together, you may tuck peacock's and oſtrich herle, and in others lay neatly the golden feathers of a pheaſant's breaſt, and the gray and dyed yellow mail of a mallard.

Three double leaves more, with only two large pockets in each, may be allotted for ſilk of various colours, gold and ſilver twiſt, and other odd things; ſix ſingle leaves more will compleat your book; ſtitch them from ſide to ſide with diſtances of half an inch, and croſs thoſe ſtitches with others, from top to bottom, with ſomewhat greater diſtances; and into every other ſpace, reckoning from top to bottom, lay neatly and ſmoothly a ſtarling's feather; do the ſame on the back-ſide, and ſo for two leaves.

The other leaves you may fill with land-rail's and other ſmall feathers, plover's tops, and red and black hackles.

The firſt and laſt leaves of your book may be double, ſtitched in the middle, from ſide to ſide, but open at the edges: which will leave you four pockets like thoſe of a common pocket-book; into which you may put hooks, and a ſmall piece of wax, wrapped in a bit of glove-leather.

To the page that contains the mixed dubbings, there ſhould be an index, referring to every diviſion contained in it, and expreſſing what fly each mixture is for.

When your book is thus prepared, ſend it to the binder, with directions to bind it as ſtrong as poſſible; let him leave a flap to one of the boards, and faſten to it a yard of ribband to tie it.

The uſefulneſs and manifold conveniences of a book are apparent; and whoever will be at the pains of making ſuch a one as this, will find it preferable to a magazine-bag.

PIKE ANGLING.

The pike loves a ſtill, ſhady, unfrequented water, and uſually lies amongſt or near weeds; ſuch as flags, bulruſhes, candocks, reeds, or in the green fog that ſometimes covers ſtanding waters, though he will ſometimes ſhoot out into the clear ſtream. He is ſometimes caught at the top, and in the middle, and often, eſpecially in cold weather, at the bottom.

Pikes

Pikes are called jacks till they become twenty-four inches long.

The bait for pike, beſide thoſe mentioned under the *Article* PIKE, are a ſmall trout, the loach and miller's thumb, the head end of an eel, with the ſkin taken off below the fins, a ſmall jack, a lob-worm, and in winter, the fat of bacon. And notwithſtanding what others ſay againſt baiting with a perch, it is confidently aſſerted, that pikes have been taken with a ſmall perch, when neither a roach nor bleak would tempt them.

Obſerve that all your baits for pike muſt be as freſh as poſſible. Living baits you may take with you in a tin kettle, changing the water often; and dead ones ſhould be carried in freſh bran, which will dry up the moiſture that otherwiſe would infect and rot them.

A method of fiſhing for pike, which has been thought worthy of a diſtinct treatiſe; for which method, and for the ſnap, take theſe directions; and firſt for trolling:

And note that, in trolling, the head of the bait-fiſh muſt be at the bent of the hook; whereas, in fiſhing at the ſnap, the hook muſt come out at or near his tail. But the eſſential difference between theſe two methods is, that in the former the pike is always ſuffered to pouch or ſwallow the bait, but in the latter you are to ſtrike as ſoon as he has taken it.

The rod for trolling ſhould be about three yards and a half long, with a ring at the top for the line to run through; you may fit a trolling-top to your fly-rod, which need only be ſtronger than the common fly-top.

Let your line be of green or ſky-coloured ſilk, thirty yards in length, which will make it neceſſary to uſe the winch, as is before directed, with a ſwivel at the end.

The common trolling-hook for a living-bait, conſiſts of two large hooks, with one common ſhank, made of one piece of wire, of about three quarters of an inch long, placed back to back, ſo that the points may not ſtand in a right line, but incline ſo much inwards, as that the ſhank may form an angle little leſs than equilateral. At the top of the ſhank is a loop left in the bending the wire, to make the hook double, through which is put a ſtrong twiſted braſs wire of about ſix inches long; and to this is looped another ſuch link, but both ſo looſe that the hook and the lower link may have room to play: to the end of the line faſten a ſteel ſwivel.

But there is a ſort of trolling-hook different from that already deſcribed, and to which it is thought preferable, which will require another management; this is no more than two ſingle hooks tied back to back with a ſtrong piece of gimp between the ſhanks; in the whipping the hooks and the gimp together, make a ſmall loop, and take into it two links of chain of about an eighth of an inch diameter; and into the lower link, by means of a ſmall ſtaple of wire, faſten, by the greater end, a bit of lead of a conical figure, and ſomewhat ſharp at the point. Theſe hooks are to be had at the fiſhing-tackle ſhops, ready fitted up; but ſee the form of them, Fig. 5.

This latter kind of hook is to be thus ordered, *viz.* put the lead into the mouth of the bait-fiſh, and ſow it up, the fiſh will live ſome time; and though the weight of the lead will keep his head down, he will ſwim with nearly the ſame eaſe as if at liberty.

But if you troll with a dead bait, as ſome do, for a reaſon which the angler will be glad to know, *viz.* that a living-bait makes too great a ſlaughter among the fiſh, do it with a hook, of which the following paragraph contains a deſcription.

Let the ſhank be about ſix inches long, and leaded from the middle as low as the bent of the hook, to which a piece of very ſtrong gimp muſt be faſtened by a ſtaple, and two links of chain; the ſhank muſt be barbed like a dart, and the lead a quarter of an inch ſquare: the barb of the ſhank muſt ſtand like the fluke of an anchor, which is placed in a contrary direction to that of the ſtock, ſee Fig. 6. Let the gimp be about a foot long, and to the end thereof fix a ſwivel: to bait it, thruſt the barb of the ſhank into the mouth of the bait-fiſh, and bring it out at the ſide near the tail: when the barb is thus brought through, it cannot return, and the fiſh will lie perfectly ſtraight, a circumſtance that renders the trouble of tying the tail unneceſſary.

There is yet another ſort of trolling-hook, which is, indeed, no other than what moſt writers on this ſubject have mentioned; whereas the others, here deſcribed, are late improvements; and this is a hook, either ſingle or double, with a long ſhank, leaded about three inches up the wire with a piece of lead about a quarter of an inch ſquare at the greater or lower end; fix to the ſhank an armed wire about eight inches long: to bait this hook thruſt your wire into the mouth of the fiſh, quite through his belly, and out at his tail, placing the wire ſo as that the point of the hook may be even with the belly of the bait-fiſh, and then tie the tail of the fiſh with ſtrong thread, to the wire; ſome faſten it with a needle and thread, which is a neat way.

Both with the troll and at the ſnap, cut away one of the fins of the bait-fiſh cloſe at the gills, and another behind the vent on the contrary ſide, which will make it play the better.

The bait being thus fixed, is to be thrown in, and kept in conſtant motion in the water, ſometimes ſuffered to ſink, then gradually raiſed; now drawn with the ſtream, and then againſt it, ſo as to counterfeit the motion of a ſmall fiſh in ſwimming. If a pike is near, he miſtakes the bait for a living fiſh, ſeizes it with prodigious greedineſs, goes off with it to his hold, and in about ten minutes pouches it. When he has thus ſwallowed the bait, you will ſee the line move, which is the ſignal for ſtriking him; do this with two luſty jerks, and then play him.

The other way of taking pike, *viz.* with the ſnap, is as follows:

Let the rod be twelve feet long, very ſtrong and taper, with a ſtrong loop at the top to faſten your line to; your line muſt be about a foot ſhorter than the rod, and much ſtronger than the trolling-line.

And here it is neceſſary to be remembered, that there are two ways of ſnapping for pike, *viz.* with the live and with the dead ſnap.

For the live ſnap, there is no kind of hook ſo proper

as the double ſpring hook; the form whereof, in two views, is given in the plates, Fig. 7. and 8. To bait it, nothing more is neceſſary than to hang the bait-fiſh faſt by the back fin to the middle hook, where he will live a long time.

Of hooks for the dead ſnap there are many kinds. Fig. 9. of the plate, is a repreſentation of one, which after repeated trials, has been found to excel all others hitherto known; the deſcription and uſe of it is as follows, *viz.* Whip two hooks, of about three-eighths of an inch in the bent, to a piece of gimp, in the manner directed for that trolling-hook, a view of which is given in the plate, Fig. 5. Then take a piece of lead, of the ſame ſize and figure as directed for the trolling-hook above-mentioned, and drill a hole through it from end to end: to bait it, take a long needle, or wire; enter it in at the ſide, about half an inch above the tail, and with it paſs the gimp between the ſkin and the ribs of the fiſh, bring it out at his mouth; then put the lead over the gimp, draw it down into the fiſh's throat, and preſs his mouth cloſe, and then, having a ſwivel to your line, hang on the gimp.

In throwing the bait, obſerve the rules given for trolling; but remember, that the more you keep it in motion, the nearer it reſembles a living fiſh.

When you have a bite, ſtrike immediately the contrary way to that which the head of the pike lies, or to which he goes with the bait; if you cannot find which way his head lies, ſtrike upright with two ſmart jerks, retiring backwards as faſt as you can, till you have brought him to a landing-place, and then do as before is directed.

As the pike ſpawns in *March*, and before that month rivers are ſeldom in order for fiſhing, it will hardly be worth while to begin trolling till *April;* after the weeds will be apt to be troubleſome. But the prime month in the year for trolling is *October*, when the pike are fattened by their ſummer's feed, the weeds are rotted, and by the falling of the waters the harbours of the fiſh are eaſily found.

Chuſe to troll in clear, and not muddy water, and in windy weather, if the wind be not eaſterly.

Some uſe in trolling and ſnapping two or more ſwivels to their line, by means whereof the twiſting of the line is prevented, the bait plays more freely, and, though dead, is made to appear as if alive; which, in rivers, is doubtleſs an excellent way: but thoſe who can like to fiſh in ponds or ſtill waters, will find very little occaſion for more than one.

The pike is alſo to be caught with a minnow, for which method take the following directions:

Get a ſingle hook, ſlender, and long in the ſhank; let it reſemble the ſhape of a ſhepherd's crook; put lead upon it, as thick near the bent as will go into the minnow's mouth; place the point of the hook directly up the face of the fiſh; let the rod be as long as you can handſomely manage, with a line of the ſame length, caſt up and down, and manage it as when you troll with any other bait: if, when the pike has taken your bait, he runs to the end of the line before he hath gorged it, do not ſtrike, but hold ſtill only, and he will return back and ſwallow it: but if you uſe that bait with a troll, I rather prefer it before any bait that I know.

In landing a pike great caution is neceſſary, for his bite is eſteemed venomous: the beſt and ſafeſt hold you can take of him is by the head, in doing which, place your thumb and finger in his eyes.

If you go any great diſtance from home, you will find it neceſſary to carry with you many more things than are here enumerated, moſt of which may be very well contained in a wicker panier of about twelve inches wide, and eight high, and put into a hawking-bag, of the form as in Fig. 10. The following is a liſt of the moſt material ingredients: A rod with a ſpare top, lines coiled up, and neatly laid in round flat boxes; ſpare links, ſingle hairs, waxed thread, and ſilk; plummets of various ſizes, of the form of Fig. 11. floats of all kinds, and ſpare caps; worm-bags, and a gentle-box, Fig. 12. in the plate; hooks of all ſizes, ſome whipped two ſingle hairs; ſhot, ſhoemaker's wax, in a very ſmall gallipot covered with a bit of leather; a clearing ring, tied to about ſix yards of ſtrong cord, of the ſhape of Fig. 13. the uſe of this is to diſengage your hook when it has caught a weed, *&c.* in which caſe take off the butt of your rod, and ſlip the ring over the remaining joints, and holding it by the cord, let it gently fall; a landing-net, the hoop whereof muſt be of iron, and made with joints to fold, in the ſhape of Fig. 14. and a ſocket to hold a ſtaff, Fig. 15. Take with you alſo ſuch baits as you intend to uſe. That you may keep your fiſh alive, be provided with a ſmall hoop-net to draw cloſe to the top, and never be without a ſharp knife and a pair of ſciſſars; and if you mean to uſe the artificial fly, have your fly-book always with you.

And for the more convenient keeping and carriage of lines, links, ſingle hairs, *&c.* take a piece of parchment or vellum, ſeven inches by ten; on the longer ſides ſet off four inches, and then fold it croſs-wiſe, ſo as to leave a ſlip of two inches, of which hereafter; then take eight or ten pieces of parchment, of ſeven inches by four, put them into the parchment or vellum, ſo folded, and ſew up the ends; then cut the flap rounding, and fold it down like a pocket-book: laſtly, you may, if you pleaſe, bind the ends and round the flap with red tape.

And having ſeveral of theſe caſes, you may fill them with lines, *&c.* proper for every kind of fiſhing; always remembering to put into each of them a gorger, or ſmall piece of cane, of five inches long, and a quarter of an inch wide, with a notch at each end; with this, when a fiſh has gorged your hook, you may, by putting it down his throat till you feel the hook, and holding the line tight while you preſs it down, eaſily diſengage it.

And if you ſhould chance to break your rod, take the following directions for mending it: cut the two broken ends with a long ſlope ſo that they fit neatly together; then ſpread ſome wax very thin on each ſlope, and, with waxed thread or ſilk, according as the ſize of the broken part requires, bind them very neatly together: to faſten off, lay the fore finger of your left hand over the binding, and with your right, make four turns of the thread over it; then paſs the end of your thread between the under ſide of your finger and rod,

and

and draw your finger away; laſtly, with the fore finger and thumb of your right hand, take hold of the firſt of the turns, and gathering as much of it as you can, bind on till the three remaining turns are wound off, and then take hold of the end, which you had before put through, and then draw cloſe, ſee Fig. 16*, 17.

For whipping on a hook take the following directions: place the hook betwixt the fore finger and thumb of your left hand, and, with your right, give the waxed ſilk three or four turns round the ſhank of the hook: then lay the end of the hair on the inſide of the ſhank, and with your right hand whip down, as in Fig. 18; when you are within four turns of the bent of the hook, take the ſhank between the fore finger and thumb of your left hand, and place the end of the ſilk cloſe by it, holding them both tight, and leaving the end to hang down, then draw the other part of the ſilk into a large loop, and, with your right hand turning backwards, as in Fig. 19. continue the whipping for four turns, and draw the end of the ſilk, which has all this while hung down under the root of your left thumb, cloſe, and twitch it off.

To tie a water knot, lay the end of one of your hairs about five inches or leſs, over that of the other, and through the loop, which you would make to tie them in the common way, paſs the long and the ſhort end of the hairs, which will lie to the right of the loop, twice, and wetting the knot with your tongue, draw it cloſe, and cut off the ſpare hair, ſee Fig. 20.

The ſtraw worm, or ruff coat, I take it is the moſt common of any, and is found in the river *Colne*, near *Uxbridge*; the *New River*, near *London*; the *Wandle*, which runs through *Carſhalton* in *Surry*; and in moſt other rivers. Two of this ſpecies of inſects, drawn from nature, are given in the plate, Fig. 22 and 23; and Fig. 24 is the appearance of the cadis when pulled out of its caſe. As to the ſtraw-worm, I am aſſured by thoſe converſant with it, that it produces many and various flies, namely, that which is called about *London* the withy-fly, aſh coloured duns, of ſeveral ſhapes and dimenſions, as alſo light and dark browns; all of them affording great diverſion in northern ſtreams.

To preſerve cadis, graſhoppers, caterpillars, oak-worms, or natural flies, the following is an excellent method: cut a round hough of fine green-barked withy, about the thickneſs of one's arm, and taking off the bark about a foot in length, turn both ends together, into the form of an hoop, and faſten them with a pack-needle and thread; then ſtop up the bottom with a bung-cork: into this put your baits, tie it over with a colewort-leaf, and, with a red-hot wire bore the bark full of holes, ſee Fig 21, and lay it in the graſs every night; in this manner cadis may be kept till they turn to flies. To graſhoppers you may put graſs.

But, that I may not miſlead: I take the ruff-coat to be a ſpecies of cadis incloſed in a huſk about an inch long, ſurrounded by bits of ſtone, flints, bits of tile, *&c.* very nearly equal in their ſize, and moſt curiouſly compacted together like moſaic.

One of the inſects laſt deſcribed, was in the river *Wandle*, in *Surry*: I put it into a ſmall box, with ſand in the bottom, and wetted it five or ſix times a-day, for five days; at the end whereof, to my great amazement, it produced a lovely large fly, nearly of the ſhape of, but leſs than a common white-butterfly, with two pair of cloak wings, and of a light cinnamon-colour: the figure of the huſk, and alſo of the fly, in two poſitions, is given in Fig. 25, 26, 27. This fly, upon inquiry, I find is called, in the north, the large light brown; in *Ireland*, and ſome other places, it has the name of the flame-coloured brown; and the method of making it, is given in the additional liſt of flies for *September*; where, from its ſmell, the reader will find it called the large fœtid light brown.

There are many other kinds of theſe wonderful creatures, which for the reader's greater ſatisfaction, in the Figures 28, 29, 30, 31, are accurately delineated.

For your float, in ſlow ſtreams, a neat round gooſe-quill is proper; but for deep or rapid rivers, or in an eddy, the cork, ſhaped like a pear, is indiſputably the beſt; which ſhould not, in general, exceed the ſize of a nutmeg; let not the quill, which you put through it, be more than half an inch above and below the cork; and this float, though ſome prefer a ſwan's quill, has great advantage over a bare quill; for the quill being defended from the water by the cork, does not ſoften, and the cork enables you to lead your line ſo heavily, as that the hook ſinks almoſt as ſoon as you put it into the water; whereas, when you lead but lightly, it does not get to the bottom till it is near the end of your ſwim. See the form of the float, Fig. 16, and in leading your line, be careful to balance them ſo nicely, that a very ſmall touch will ſink them; ſome uſe for this purpoſe lead ſhaped like a barley-corn, but there is nothing better to lead with than ſhot, which you muſt have ready cleft always with you; remembering, that when you fiſh fine, it is better to have on your line a great number of ſmall than a few large ſhot.

Whip the end of the quill round the plug with fine ſilk, well waxed; this will keep the water out of your float, and preſerve it greatly.

In fiſhing with a float, your line muſt be about a foot ſhorter than your rod; for if it is longer, you cannot ſo well command your hook when you come to diſengage the fiſh.

Perch and chub are caught with a float, and alſo gudgeons, and ſometimes barble and grayling.

For carp and tench, which are ſeldom caught but in ponds, uſe a very ſmall gooſe or a duck-quill float; and throw in every now and then a bit of chewed bread.

Some may chuſe to make their own lines; in which caſe, if they prefer thoſe twiſted with the fingers, they need only obſerve the rules given by the article for that purpoſe: but for greater neatneſs and expedition, I would recommend an engine lately invented, which is now to be had at almoſt any fiſhing-tackle ſhop in *London*; it conſiſts of a large horizontal wheel, and three very ſmall ones, incloſed in a braſs box about a quarter of an inch thick, and two inches in diameter; the axis of each of the ſmall wheels is continued through the under ſide of the box, and is formed into a hook: by means of a ſtrong ſcrew it may be fixed in any poſt

or

or partition, and is ſet in motion by a ſmall winch in the centre of the box.

To twiſt links with this engine, take as many hairs as you intend each ſhall conſiſt of, and, dividing them into three parts, tie each parcel to a bit of fine twine, about ſix inches long, doubled, and put through the aforeſaid hooks; then take a piece of lead, of a conical figure, two inches high, and two in diameter at the baſe, with a hook at the apex, or point; tie your three parcels of hair into one knot, and to this, by the hook, hang the weight.

Laſtly, Take a quart or larger bottle-cork, and cut into the ſides, at equal diſtance, three grooves; and placing it ſo as to receive each diviſion of hair, begin to twiſt: you will find the link begin to twiſt with great evenneſs at the lead; as it grows tighter, ſhift the cork a little upwards; and when the whole is ſufficiently twiſted, take out the cork, and tie the link into a knot; and ſo proceed till you have twiſted links ſufficient for your line, obſerving to leſſen the number of hairs in each link in ſuch proportion as that the line may be taper. See the engine, Fig. 32. Fig. 33. is the form of the cork.

When you uſe the fly, you will find it neceſſary to continue your line to a greater degree of fineneſs; in order to which, ſuppoſing the line to be eight yards in length, faſten a piece of three or four twiſted links tapering, till it becomes of the ſize of a fine graſs, and to the end of this fix your hook-line, which ſhould be either of very fine graſs, or ſilk-worm gut. A week's practice will enable a learner to throw one of theſe links, and he may lengthen it, by a yard at a time, at the greater end, till he can throw fifteen yards neatly; till when he is to reckon himſelf but a novice.

For the colour, you muſt be determined by that of the river you fiſh in; but I have found that a line of the colour of pepper and ſalt, when mixed, will ſuit any water.

Many inconveniences attend the uſe of twiſted hairs for your hook-line; ſilk-worm gut is both fine and very ſtrong, but then it is apt to fray; though this may, in ſome meaſure, be prevented by waxing it well.

Indian, or ſea-graſs, makes excellent hook-lines; and though ſome object to it as being apt to grow brittle, and to kink in uſing, with proper management it is the beſt material for the purpoſe yet known, eſpecially if ordered in the following manner:

Take as many of the fineſt you can get, as you pleaſe, put them into a veſſel, and pour therein the ſcummed fat of a pot wherein freſh, but by no means ſalt meat has been boiled; when they have lain three or four hours, take them out one by one, and ſtripping the greaſe off with your finger and thumb, but do not wipe them, ſtretch each graſs as long as it will yield, coil them up in rings, and lay them by, and you will find them become nearly as ſmall, full as round, and much ſtronger than the beſt ſingle hairs you can get. To preſerve them moiſt, keep them in a piece of bladder well oiled, and, before you uſe them, let them ſoak about half an hour in water; or, in your walk to the river-ſide, put a length of it into your mouth.

If your graſs is coarſe, it will fall heavily in the water, and ſcare away the fiſh; on which account, gut has the advantage. But, after all, if your graſs be fine and round, it is the beſt thing you can uſe.

Suppoſing you would make the plain hackle or palmer, which are terms of the ſame import, the method of doing it is as follows, *viz.*

Hold your hook in a horizontal poſition, with the ſhank downwards, and the bent of it between the fore-finger and thumb of your left hand; and having a fine briſtle, and other materials, lying by you, take half a yard of fine red marking ſilk, well waxed, and, with your right-hand, give it four or five turns round the ſhank of the hook, inclining the turns to the right hand: when you are near the end of the ſhank, turn into ſuch a loop as you are hereafter directed to make for faſtening off, and draw it tight, leaving the ends of the ſilk to hang down at each end of the hook. Having ſinged the end of your briſtle, lay the ſame along on the inſide of the ſhank of the hook, as low as the bent, and whip four or five times round; then ſinging the other end of the briſtle to a fit length, turn it over to the back of the ſhank, and, pinching it into a proper form, whip down and faſten off, as before directed; which will bring both ends of the ſilk into the bent. After you have waxed your ſilk again, take three or four ſtrands of an oſtrich feather, and holding them, and the bent of the hook as at firſt directed, the feathers to your left-hand, and the roots in the bent of your hook, with that end of the ſilk you juſt now waxed, whip them three or four times round, and faſten off: then turning the feathers to the right, and twiſting them and the ſilk with your fore-finger and thumb, wind them round the ſhank of the hook, ſtill ſupplying the ſhort ſtrands with new ones, as they fail, till you come to the end, and faſten off. When you have ſo done, clip off the palmer ſmall at the extremities, and full in the middle, and wax both ends of your ſilk, which are now divided, and lie at either end of the hook.

Lay your work by you, and taking a ſtrong bold hackle, with fibres about half an inch long, ſtraiten the ſtem very carefully, and holding the ſmall end between the fore-finger and thumb of your left-hand, with thoſe of the right, ſtroke the fibres the contrary way to that which they naturally lie; and taking the hook, and holding it as before, lay the point of the hackle into the bent of the hook with the hollow, which is the paleſt ſide, upwards, and whip it very faſt to its place; in doing whereof, be careful not to tie in many of the fibres; or if you ſhould chance to do ſo, pick them out with the point of a very large needle.

When the hackle is thus made faſt, the utmoſt care and nicety is neceſſary in winding it on; for if you fail in this, your fly is ſpoiled, and you muſt begin all again; to prevent which, keeping the hollow or pale ſide to your left hand, and as much as poſſible, the ſide of the ſtem down on the dubbing, wind the hackle twice round, and holding faſt what you have ſo wound, pick out the looſe fibres, which you may have taken in, and make another turn: then lay hold of the hackle with the third and fourth fingers of your left hand, with

which

which you may extend it while you diſengage the looſe fibres as before.

In this manner proceed till you come to within an eighth of an inch of the end of the ſhank, where you will find an end of ſilk hanging, and by which time you will find the fibres at the great end of the hackle ſomewhat diſcompoſed; clip theſe off cloſe to the ſtem, and, with the end of your middle finger, preſs the ſtem cloſe to the hook, while, with the fore-finger of your right-hand, you turn the ſilk into a loop; which when you have twice pu over the end of the ſhank of the hook, loop and all, your work is ſafe.

Then wax that end of the ſilk which you now uſed, and turn it over as before, till you have taken up nearly all that remained of the hook, obſerving to lay the turns neatly ſide by ſide; and laſtly, clip off the ends of the ſilk: thus will you have made a bait that will catch trout of the largeſt ſize in any water in *England*.

And leſt the method of faſtening off, which occurs ſo often in this kind of work, ſhould not appear ſufficiently intelligible, the reader will ſee it repreſented in Fig. 34.

It is true, the method above deſcribed will require ſome variations in the caſe of gold and ſilver-twiſt palmers; in the making whereof, the management of the twiſt is to be conſidered as another operation; but this variation will ſuggeſt itſelf to every reader, as will alſo the method of making thoſe flies, that have hackle under the wings.

As the foregoing directions mention only the materials for making the ſeveral flies, the reader may yet be at a loſs both with reſpect to their form and ſize; therefore we have in the plate given the five, which may be conſidered as radical flies; and they are, the palmer, Fig. 35, the green-drake, 36, the dun-cut, 37, the hawthorn-fly, 38, and the ant fly, 39. The two firſt are each a ſpecies by itſelf; the third is a horned fly; the fourth has hackle under his wings; and the fifth, as moſt flies of the ant-kind have, has a large bottle-tail; and to one or other of theſe figures, it is imagined all flies are reducible.

In adjuſting their different ſizes, it muſt be owned there is great difficulty; all that can be ſaid is, that the Figures 11 and 12, exhibit the uſual ſize of the palmer, the green and gray-drake. Fig. 13, may ſerve as a ſpecimen for moſt flies that are not directed to be made large; and when directions are given to make the fly ſmall, the reader is to conſider Fig. 14, as an example.

Gnats cannot be made too ſmall.

Some, in making a fly, work it upon, and faſten it immediately to, the hook-link, whether it be of gut, graſs, or hair: others whip on the ſhank of the hook a ſtiff hog's briſtle bent into a loop; concerning theſe methods there are different opinions.

The latter, except for ſmall flies, ſeems the more eligible way; and it has this advantage, that it enables you to keep your flies in excellent order; to do which, ſtring each ſpecies ſeparately, through the loops, upon a fine piece of cat-gut, of about ſeven inches long; and ſtring alſo thereon, through a large pin-hole, a very ſmall ticket of parchment, with the name of the fly written on it; tie the cat-gut into a ring, and lay them in round flat boxes, with paper between each ring; and when you uſe them, having a neat loop at the lower end of your hook-line, you may put them on and take them off at pleaſure.

In the other way, you are troubled with a great length of hook-link, which, if you put even but few flies together, is ſure to entangle, and occaſion great trouble and loſs of time. And as to an objection which ſome make to a loop, that the fiſh ſee it, and therefore will not take the fly, you may be aſſured there is nothing in it.

See GROUND ANGLING.
GROUND BAIT.
GROUND PLUMBING.

When you have hooked a fiſh, never ſuffer him to run out with the line: but keep your rod bent, and as near perpendicular as you can; by this method the top plies to every pull he makes, and you prevent the ſtraining of your line: for the ſame reaſon,

Never raiſe a large fiſh out of the water by taking the hair to which your hook is faſtened, or indeed any part of the line into your hand; but either put a landing-net under him, or for want of that, your hat; you may indeed in fly-fiſhing, lay hold of your line to draw a fiſh to you; but this muſt be done with caution.

Your ſilk for whipping hooks and other fine work, muſt be very ſmall; uſe it double, and wax it, and indeed any other kind of binding, with ſhoemaker's wax, which of all wax is the tougheſt, and holds beſt: if your wax is too ſtiff, temper it with tallow.

If for ſtrong fiſhing, you uſe graſs, which, when you can get it fine, is to be preferred to gut, remember always to ſoak it about an hour in water before you uſe it: this will make it tough, and prevent its kinking.

Whenever you begin fiſhing, wet the end of the joints of your rod; which, as it makes them ſwell, will prevent their looſening. And,

If you happen with rain or otherwiſe to wet your rod, ſo that you cannot pull the joints aſunder, turn the ferrule a few times round in the flame of a candle, and they will eaſily ſeparate.

Before you fix the loop of briſtle to your hook, in order to make a fly, to prevent its drawing, be ſure to finge the ends of it in the flame of a candle; do the ſame by the hair, to which at any time you whip a hook.

If at any time you happen to be overheated with walking, or other exerciſe, avoid ſmall liquors, eſpecially water, as you would poiſon; and rather take a glaſs of rum or brandy, the inſtantaneous effects whereof, in cooling the body, and quenching drought, are amazing.

Never be tempted in the purſuit of your recreation, to wade; at leaſt not as I have ſeen ſome do, to the waiſt. This indiſcreet practice has been known to bring on fevers that have terminated in abſceſſes, and endangered the loſs of a limb.

Be always neat in your tackle, and provided with plummets, a knife, different kinds of hooks, floats, and a few ſhots, or any thing elſe you ought to be furniſhed with, before you ſet out for your recreation.

In a pond it is beſt to angle near the ford where the cattle

cattle go to drink, and in rivers in ſuch places where ſuch ſort of fiſh you intend to angle for, do uſually frequent; as for breams, in the deepeſt and quieteſt part of the river; for eels, under over-hanging banks; for chub, in deep ſhaded holes; for perch, in ſcowers; for roach, in the ſame place as perch; for trouts, in quick ſtreams, and with a fly upon the ſtream on the top of the water.

And if you fiſh in ſuch places where you can diſcern the gravelly bottom, then be ſure that you conceal yourſelf as much as is poſſible.

In ſuch waters as are peſtered with weeds, roots of trees, and ſuch like, fiſh lie cloſe and warm, and they reſort thither in great ſhoals, and there they will bite freely; but take great care how you caſt in the hook, and how you ſtrike a bite, for the leaſt raſhneſs loſes hook and line.

And if the hook happens to be entangled, you ſhould be provided with a ring of lead, about ſix inches round, faſtened to a ſmall pack-thread, and thruſt the ring over the rod, letting it go into the water, holding faſt by the other end of the pack-thread, and work it gently up and down, and it will ſoon diſengage the hook.

It is good angling in whirlpools, under bridges, at the falls of mills, and in any place where the water is deep and clear, and not diſturbed with wind or weather.

The beſt times are from *April* to *October*, for in cold, ſtormy and windy weather, the fiſh will not bite; and the beſt times in the day are from three till nine in the morning, and from three in the afternoon till ſunſet.

If the wind be eaſterly, it will be in vain to go to angle; but you may angle well enough if it blow from any other point, provided it do not blow hard; but it is beſt in a ſoutherly wind, and a cloſe, lowering, warm day, with a gentle wind, and after a ſudden ſhower to diſturb the water, at which time they will beſt riſe at the fly, and bite eagerly; and the cooler the weather is in the hotteſt month, the better it is.

In winter all weathers and all times are much alike, only the warmeſt are the beſt.

It is very good angling a little before the fiſh ſpawn, for then their bellies being full, they frequent ſandy fords to rub and looſen their bellies, at which time they will bite freely.

It is alſo very good angling in a dull, cloudy day, after a clear, moon-ſhiny night, for in ſuch nights they are fearful to ſtir to get food, lying cloſe, ſo that being hungry the next day, they will bite boldly and eagerly.

At the opening of ſluices and mill-dams, if you go with the courſe of the water, you can hardly miſs of fiſh that ſwim up the ſtream to ſeek for what food the water brings down with it.

It is good angling at the ebb, in waters that ebb and flow; but yet the flood is to be preferred, if the tide is not ſtrong. For fly-fiſhing, *ſee* APRIL, AUGUST, *&c.* For proper directions, *ſee Article* FISHING.

DIRECTIONS *and* CAUTIONS *to be obſerved in* ANGLING.

To know at any time what baits fiſh are willing to take, open the belly of the firſt you catch, and take his ſtomach very tenderly; open it with a ſharp penknife, and you will diſcover what he then feeds on. The procuring proper baits is not the leaſt part of the angler's ſkill.

The ants-fly is to be met with from *June* to *September*, and may be kept in a bottle with ſome earth, and the roots of graſs from the ant-hills where they are bred. They are excellent bait for roach, dace, and chub, if you angle with them under the water about a hand's breadth from the bottom.

It is uſual for every angler to have his peculiar haunt. Now for the attracting and drawing together the fiſh into ſuch a place, it will be proper once in four or five days to caſt in ſome corn boiled ſoft, or garbage, or worms chopt to pieces, or grains ſteeped in blood and dried: but for carp and tench, ground malt is the moſt proper to keep them together.

If you fiſh in a ſtream, it will be beſt to caſt in the grain above the hook, down the ſtream.

The beſt way of angling with the fly is down the river, not up, and in order to make them bite freely, be ſure to uſe ſuch baits as you know they are naturally inclined to, and in ſuch manner as they are accuſtomed to receive them.

If your baits be of paſte, for the keeping them on your hook, add a little flax, or wool.

The eyes of fiſh are good baits for all fiſh.

Wear not light coloured or gay clothes when you are fiſhing, but rather black or dark coloured; and, if poſſible, ſhelter yourſelf under ſome buſh or tree, or ſtand ſo far from the bank-ſide that you can but diſcern the float; for fiſh are timorous, and fearful of every thing they ſee.

The next thing to be obſerved is the floating for ſcale fiſh, in either pond or river. Firſt, take notice, that the ſeeds bring the fiſh together; and there is no better in all angling than blood and grains, though paſte is good, but inferior to theſe.

Remember to plumb your ground angling with fine tackle, as ſingle hairs for half the line next the hook, round and ſmall plumbed, according to the float.

Other ſpecial baits are theſe; brandling, gentles, paſte, dock-worms, or caddis, (otherwiſe called cock-bait) they lie in gravelly huſk, under the ſtones in the river.

The natural fly is a ſure way of angling to augment the angler's diverſion: with the palmer, may-fly, and oak-fly, the angler muſt uſe ſuch a rod as to angle with the ground-bait; the line muſt not be ſo long as the rod.

Let the angler withdraw his fly as he ſhall find it moſt convenient and advantageous in his angling: when he comes to deep water, whoſe motion is ſlow, let him make his line about two yards long, and drop his fly behind a buſh, and he will find excellent ſport. *For* PASTE *and* WORMS *ſee their own Articles.*

ANGLING *by Hand*,

Is of three ſorts.

The firſt is performed with a line about half the length of the rod, a good weighty plummet, and three hairs next the hook, which is called a running line, and with one large brandling, or a dew-worm of a moderate ſize, or two ſmall ones of the firſt, or any other ſort proper for a trout, or indeed almoſt any worm whatſoever; for if a trout be in humour to bite, he will bite at any worm, and if you fiſh with two, bait your hook thus:

Firſt, run the point of your hook in at the very head of your firſt worm, and down through his body, till it be paſt the knot, and then let it out, and ſtrip the worm above the arming, (that you may not bruiſe it with your fingers) till you have put on the other, by running the point of your hook in below the knot, and upwards through the body, towards his head, till it be juſt covered with the head, which being done, you are then to ſlip the firſt worm down over the arming again, till the knot of both worms meet together.

The ſecond way of angling in hand, and with a running line, is with a line ſomething longer than the former, and with tackle made after the following manner:

At the utmoſt extremity of your line, where the hook is always placed in all other ways of angling, you are to have a large piſtol or carbine bullet, into which the end of your line is to be faſtened, with a peg or pin even and cloſe with the bullet, and about half a foot above that, a branch of line of two or three handfuls long, or more, for a ſwift ſtream, with a hook at the end thereof, baited with ſome of the fore-mentioned worms; and another half a foot above that armed and baited after the ſame manner, but with another ſort of worm, without any lead at all above; by which means you will always certainly find the true bottom in all depths, which, with the plummets upon your line above you can never do, but that your bait muſt always drag, while you are ſounding, (which in this way of angling muſt be continually) by which means, you are like to have more trouble, and perhaps leſs ſucceſs. And both theſe ways of angling at the bottom, are moſt proper for a dark and muddy water, by reaſon that in ſuch a condition of the ſtream, a man may ſtand as near as he will, and neither his own ſhadow, nor the nearneſs of the tackle, will hinder his ſport.

The third way of angling by hand with a ground bait, and much the beſt of all others, is with a line full as long, or a yard longer than your rod, with no more than one hair next the hook, and for two or three lengths above it, and no more than one ſmall pellet of ſhot for a plummet, your hook little, your worm of the ſmalleſt brandlings, very well ſcoured, and only one upon your hook at a time, which is thus to be baited; the point of your hook is to be put in at the tag of his tail, and run up his body quite over all the arming; and ſtill ſtript on an inch, at leaſt, upon the hair, the head and remaining part hanging downwards, and with this line and hook thus baited, you are ever more to angle in the ſtreams, always in a clear rather than a troubled water, and always up the river, ſtill caſting out your worm before you, with a clean, light, one-handed rod, like an artificial fly, where it will be taken ſometimes at the top, or within a very little of the ſuperficies of the water, and almoſt always before that light plumb can ſink it to the bottom, both by reaſon of the ſtream, and alſo that you muſt always keep your worm in motion, by drawing ſtill back towards you, as if you were angling with a fly.

And indeed whoever ſhall try this way, will find it the beſt of all others, to angle with a worm in a bright water eſpecially; but then his rod muſt be very light and pliant, and very true and finely made, and with a ſkilful hand it will ſucceed beyond expectation: and in a clear ſtream, is undoubtedly the beſt angling for a trout or grayling with a worm, by many degrees, that any man can make choice of, and the moſt eaſy and pleaſant to the angler.

And if the angler be of a conſtitution that will ſuffer him to wade, and will ſlip into the tail of a ſhallow ſtream to the calf of the leg, or knee, and ſo keep off the bank, he ſhall take almoſt what fiſh he pleaſes.

The ſecond way of angling at the bottom, is with a cork, or float, and that is alſo of two ſorts.

With a worm; or with grub, or caddis.

With a worm, you are to have your line within a foot or a foot and a half as long as your rod, in a dark water, with two, or if you will, with three; but in a clear water, never with above one hair next the hook, and two, or three, or four, or five lengths above it, and a worm of what ſize you pleaſe; your plumbs fitted to your cork, and your cork to the condition of the river, (that is, to the ſwiftneſs or ſlowneſs of the ſtream) and both when the water is very clear, as fine as you can, and then you are never to bait with more than one of the leſſer ſort of brandlings: or if they be very little ones indeed, you may then bait with two, after the manner before directed.

When you angle for a trout, you are to do it as deep, that is, as near to the bottom, as you can, provided your bait do not drag, or if it do, a trout will ſometimes take it in that poſture: if for a grayling, you are then to fiſh further from the bottom, he being a fiſh that uſually ſwims nearer to the middle of the water, and lies always looſe; or however is more apt to raiſe than a trout, and more inclined to raiſe than to deſcend even to a groundling. With a grub or caddis you are to angle with the ſame length of line; or if it be quite as long as your rod, it is not the worſe, with never above one hair for two or three lengths next the hook, and with the ſmalleſt cork, or float, and the leaſt weight of plumb you can, that will but ſink, and that the ſwiftneſs of your ſtream will allow; which alſo you may help and avoid the violence of the current, by angling in the returns of a ſtream, or the eddies betwixt two ſtreams, which alſo are the moſt likely places wherein to kill a fiſh in a ſtream, either at the top or botttom.

Of grubs for a grayling, the aſh grub which is plump, milk-white, bent round from head to tail, and exceedingly tender, with a red head; or the dock-worm; or the grub of a pale yellow, longer, lanker, and tougher than the other, with rows of feet all down

his belly, and a red head, alſo are the beſt, *i. e.* for a grayling; becauſe though a trout will take both theſe, (the aſh grub eſpecially) yet he does not do it ſo freely as the other; and a certain author ſays, he has uſually taken two graylings for one trout with that bait; but if he happened to take a trout with it, it was commonly a very good one.

Theſe baits are uſually kept in bran, in which an aſh grub commonly grows tougher, and will better endure baiting; though he is ſtill ſo tender, that it will be neceſſary to warp in a piece of ſtiff hair with your arming, leaving it ſtanding out about a ſtraw's breadth at the head of your hook, ſo as to keep the grub either from ſlipping totally off when baited, or at leaſt down to the point of the hook, by which means your arming will be left naked and bare, which is neither ſo ſightly, nor ſo likely to be taken, though to help that (which will often however fall out) you may arm the hook deſigned for this bait with the whiteſt horſe hair that you can get, which itſelf will reſemble and ſhine like that bait, and conſequently will do more good, or leſs harm, than arming of any other colour.

Theſe grubs are to be baited thus; the hook is to be put in, under the head, or the chaps of the bait, and guided down the middle of the belly, without ſuffering it to peep out by the way, for then (the aſh grub eſpecially) will iſſue out water and milk, till nothing but the ſkin ſhall remain, and the bend of the hook will appear black through it, till the point of your hook come ſo low, that the heart of your bait may reſt, and ſtick upon the hair that ſtands out to hold it, by which means it can neither ſlip of itſelf, neither will the force of the ſtream, nor quick pulling out, upon any miſtake, ſtrip off.

Now the caddis or cob bait (which is a ſure killing bait, and for the moſt part ſurer than any of the other) may be put upon the hook two or three together, and is ſometimes (to very great effect) joined to a worm, and ſometimes to an artificial fly, to cover the point of the hook; but is always to be angled with at bottom (when by itſelf eſpecially) with the fineſt tackle; and is for all times in the year, the moſt holding bait of all other whatſoever, both for trout and grayling. *See* SNAP-ANGLING, FLOAT-ANGLING, TRIMMER-ANGLING, and FLY-ANGLING, ROCK-FISHING, BLADDER-ANGLING, MAGGOT-FISHING.

To allure FISH *to bite.*

Take gum-ivy, and put a good quantity of it into a box made of oak, like thoſe the apothecaries uſe of white wood for their pills. Rub the inſide of the box with this gum, and when you angle, put three or four worms therein, letting them remain but a ſhort time; for if long, it kills them: then take them out, and uſe them, putting more in their ſtead, out of the worm-bag and moſs; and continue to do this all day.

Gum-ivy is a tear which drops from the body of the larger ivy, being wounded. It is of a yellowiſh red colour, of a ſtrong ſcent, and ſharp taſte. That which is ſold in the ſhops is often counterfeit and adulterate: therefore to get true gum-ivy, at *Michaelmas*, or ſpring, drive ſeveral great nails into large ivy-ſtalks, and having wriggled them till they become very looſe, let them remain, and a gum will iſſue out of the hole. Or you may ſlit ſeveral great ivy-ſtalks, and viſit them once a month, or oftener, to ſee what gum flows from the wounded part. This gum is excellent for the angler's uſe; perhaps nothing more ſo under the form of an unguent. Alſo,

Take aſſa-fœtida, half an ounce; camphire, two drachms; bruiſe them well together with ſome drops of oil of olive, and put it into a pewter box, to uſe, as the receipt from Monſieur CHARRAS. Some, inſtead of oil of olive, uſe the chemical oil of lavender and camomile; and ſome add the quantity of a nutmeg of *Venice* turpentine to it. But for a trout in a muddy water, and for gudgeons in a clear water, the beſt unguents are thus compounded, *viz.*

Take aſſa-fœtida, three drachms; camphire, one drachm; *Venice* turpentine, one drachm, beat all together with ſome drops of the chemical oils of lavender and camomile, of each an equal quantity; and uſe it as in the firſt direction.

Take *Venice* turpentine, the beſt hive-honey, and oil of pollibody of the oak, drawn by retort: mix all together, and uſe it as the firſt ointment is directed.

Take oil of ivy-berries, made by expreſſion or infuſion, and put ſome in a box, and uſe it to ſcent a few worms juſt before you uſe them.

Diſſolve gum-ivy in the oil of ſpike, and anoint the bait with it for a pike.

Put camphire in the moſs wherein are your worms, the day you angle.

Diſſolve two ounces of gum-ivy in a gill of ſpring water; mix them together with the like quantity of the oil of ſweet almonds; then take what quantity of worms you intend to uſe that day, being firſt well ſcoured in moſs, and put them in linen thrums (the ends of the weaver's warp when he has finiſhed his piece) well waſhed in ſpring-water, and ſqueezed: then wet the thrums in this compoſition, and put them and the worms into a linen bag, out of which uſe them.

Take aſſa-fœtida, three drachms; ſpikenard of *Spain*, one drachm: put them in a pint of ſpring-water, and let them ſtand in a ſhady place fourteen days in the ground: then take the ſolution out, and having drained it through a linen cloth, put to the liquor one drachm of ſpermaceti, and keep it cloſe in a ſtrong glaſs bottle. When you go to angle, take what quantity of worms you intend to uſe that day, (they being firſt well ſcoured in moſs) put them upon a china ſaucer, and pour a little of this water upon them; then put them in the moſs again, and uſe them.

Take juice of camomile, half a ſpoonful; chemical oil of ſpike, one drachm; oil of comfrey, by infuſion, one drachm and a half; gooſe-greaſe, two drachms: theſe being well diſſolved over the fire, let them ſtand till they are cold; then put them into a ſtrong glaſs bottle, which keep unſtopped three or four days; ſtop it afterwards very well, and when you angle, anoint the bait with this compoſition.

Some add to it three drachms of the ſpirit of vitriol, and call it the univerſal and infallible bait.

Take

Take a handful of houſe-leek, and half a handful of inner green bark of the ivy-ſtalk: pound theſe well together, and preſs out the juice, and wet your moſs therewith. When you angle, put ſix or eight worms therein out of the other bag.

Some uſe the juice of nettles and houſe-leeks, as the laſt receipt, and ſome only the juice of houſe-leek.

Some anoint their baits with the marrow got out of a heron's thigh-bone; and ſome uſe the fat and greaſe of a heron.

Oil of anniſeed, ſpikenard of *Spain*, ſpermaceti, powdered cummin-ſeed, galbanum, are all highly commended; and may be tried ſingly or compounded; either mixed up in a paſte, or uſed as unguents.

Make up a paſte with mulberry-juice, hedge-hog's fat, oil of water-lilies, and a few drops of oil of penny-royal. Some highly commend this.

Oil of amber, roſemary, and myrrh, alike of each, mixed with the worms, or in paſte, is ſaid to make the paſte ſo powerful, that no fiſh will reſiſt it.

Sea-gull's fat, mixed with eringo-juice, is an attractive unguent.

Unpickled ſamphire bruiſed, made up in balls for ground-bait with walnut-oil, is excellent for carp, bream, or tench. Alſo bean-flour, with a little honey, wetted with rectified ſpirits of wine and a little oil of turpentine, made up in ſmall pellets, and thrown in over night, will make the fiſh very eager, and keep them at the place, where you will be ſure to find them next morning.

Take the oils of camomile, lavender, anniſeed, each a quarter of an ounce, heron's greaſe, and the beſt of aſſa-fœtida, each two drachms, two ſcruples of cummin-ſeed, finely beaten to powder, *Venice* turpentine, camphire, and galbanum, of each a drachm; add two grains of civet, and make them into an unguent; this muſt be kept cloſe in a glazed earthen pot, or it loſes much of its virtue; anoint your line with it as before, and your expectation will be anſwered. *See* PASTE.

ANGLING *in the Middle for Trout or Grayling,*

Is of two ſorts; 1. with a pink, or minnow, for a trout.

2. With a worm, grub, or caddis, for a grayling.

As for the firſt it is with a minnow, half a foot or a foot within the ſurface of the water; ſome indeed uſe minnows kept in ſalt; but others diſapprove of them, unleſs where living ones are not poſſible to be had; nor are artificial ones to be uſed, where the natural ones are to be had: but a bull-head with his gill-fins cut off is by ſome recommended as a better bait for a trout, (at ſome times of the year eſpecially) than a minnow, and a loach much better than either.

The ſecond way of angling in the middle is with the worm, grub, caddis, or any other ground bait for a grayling; he taking it much better there than at the bottom, as has been ſaid before; and this is always in a clear water, and with the fineſt tackle.

To which may be added alſo, and with very good reaſon, a third way of angling by hand with a ground bait, as a third way of fiſhing in the middle, which is common both to trout and grayling, and the beſt way of angling with a worm of all other.

The Time for ANGLING, *ſeaſonable and unſeaſonable.*

Calm and clear weather is very good to angle in; but cool cloudy weather in ſummer is beſt; provided it be not ſo boiſterouſly windy as that you cannot guide your tackle.

The cooler the weather is in the hotteſt months, the better it is; and if a ſudden violent ſhower hath diſturbed and muddied the river, then is the time for angling in the ſtream at the ground with a red worm.

In like manner it is a very good time for angling before the fiſh ſpawn; for then their bellies being full, they come into ſandy fords, and there rub their bellies to looſen them, at which time they will bite very freely.

If you would fiſh for carp and tench, you muſt begin early in the morning, fiſhing from ſun-riſing till eight of the clock, and from four in the afternoon till night, and in hot months till it is very late.

In the heat of the ſummer, carps will ſhew themſelves on the very top of the water, at which time, if you fiſh with a lob-worm, as you do with a natural fly, you have excellent ſport, eſpecially if it be among reeds.

In *March*, *April*, *September*, and all the winter (in which ſeaſon fiſh ſwim very deep near the ground) it is beſt fiſhing in a ſerene warm day, for then they will bite faſter: but all the ſummer time, mornings, evenings, and cool, cloudy weather, are the beſt times for angling.

Here take notice, that you will find that fiſh riſe beſt at the fly after a ſhower of rain, that has only beaten the gnats and flies into the river, without mudding it.

The proper months and times of the day for the fly, are *March*, *April*, *May*, and the beginning of *June*; in which months, fiſh in the morning about nine of the clock; and in the afternoon between three and four. A warm evening is alſo very ſeaſonable, if the gnats play much.

It is alſo a very good time for angling after a clear moon-ſhiny night, if the ſucceeding day prove cloudy; for if the fiſh have abſtained from food all night, (for in bright nights they will not ſtir for fear) the next day they are hungry and eager, and the gloomineſs of the day will make them bite boldly.

It is a good time for angling, when you perceive the trouts to leap pleaſantly at the flies above water; or the pikes to purſue other fiſh.

In a word, an experienced angler obſerves the times, ſeaſons, and places; otherwiſe, though his baits are ever ſo good, they will have but little effect.

If you go along with the courſe of the water at the opening of ſluices or mills, you wil find that trout and other fiſh will then come out to ſeek for what food the water brings down with it.

And firſt in the extremity of heat, when the earth is

parched with a drought, there is little ſport to be had, eſpecially in either muddy or clear ſhallow rivers.

Secondly, in the winter, or ſpring time, when any hoary froſt happens, the fiſh will not bite kindly all that day, except it be in the evening, and that proves ſerene and pleaſant. But it is not proper to fiſh at any time, when the wind blows ſo high that you cannot manage your tackle to advantage.

Thirdly, it is not good fiſhing in the time of ſheep-ſhearing, for then the fiſh glut themſelves with what is waſhed off the ſheep, and will ſcarce bite till that ſeaſon be over.

Alſo the ſharp caſt and northerly winds do very much obſtruct the recreation of anglers: nor is it good to fiſh immediately after ſpawning time: for at that time their appetite is much palled.

It is very ſtrange to be obſerved, what a natural inſtinct there is in fiſh, in foreknowing the approach of a ſhower of rain, for upon the approach of a cloud that threatens a ſhower, they will not bite; and the obſervation of this has ſaved ſeveral anglers from being wet to the ſkin.

Laſtly, if the preceding night prove dark and cloudy, the ſucceeding day will be no good day to angle in, unleſs it be for ſmall fiſh; for at ſuch time the larger prey abroad for the leſſer; who, by inſtinct knowing the danger, hide themſelves till the morning; and having faſted all night, become then very hungry, while the larger, having gorged themſelves, lie abſconded all the day. For directions for ARTIFICIAL FLY-FISHING, ſee the Article FISH.

ANGLING-LINE; to make this line, the hair ſhould be round and twiſted even, for that ſtrengthens it, and ſhould alſo be as near as may be of equal bigneſs; then lay them in water for a quarter of an hour, whereby you will find, which of them will ſhrink, then twiſt them over again, and in twiſting, ſome intermingle ſilk, which is not good, but a line of all ſilk is not amiſs; alſo a line made of the ſtrongeſt lute-ſtring is very good, but that will ſoon rot with the water: now the beſt colour for lines, is ſorrel, white and grey; the two laſt colours for clear waters, and the firſt for muddy rivers, neither is the pale watery green deſpiſeable, which colour may be made thus; put a pint of ſtrong allum, half a pound of ſoot, a ſmall quantity of juice of walnut-leaves, with the like of alum, into a pipkin, boil them about half an hour together, then take it off the fire; when it is cool, ſteep your hair in it; or elſe thus, boil in a bottle of alum water, ſomewhat more than a handful of marigold flowers, till a yellow ſcum ariſe; then take half a pound of green copperas, with as much verdigriſe, and beat them together to a fine powder; and with the hair, put them into the alum water, and let it lie ten hours, or more: take the hair out, and let it dry. *See* LINES FOR FISHING.

ANGLING-ROD. The time to provide ſtocks is in the winter ſolſtice, when the trees have ſhed their leaves, and the ſap is in the roots: for after *January* it aſcends again into the trunk and branches, at which time it is improper to gather ſtocks, or tops; as for the ſtocks they ſhould be lower grown, and the tops the beſt ruſh ground ſhoots that can be got, not knotty, but proportionable and ſlender, for otherwiſe they will neither caſt or ſtrike well, and the line by reaſon of their unpliableneſs, muſt be much endangered; now when both ſtock and top are gathered in one ſeaſon, and as ſtraight as may be, bathe them (except the tops) over a gentle fire, and uſe them not till fully ſeaſoned, which is a year and four months; but they are better if kept two years; and for the preſerving, both from rotting, and worm eating, rub them over thrice a year with ſallad, or linſeed oil; ſweet butter will ſerve if never ſalted; and with any of theſe you muſt chafe your rods well; if bored, pour in either of the oils, and let them ſoak therein twenty-four hours, then pour it out again; this will preſerve the tops and ſtocks from injuring. *See* FISHING-LINE, HOOK, FLOAT, *and* ROD, &c.

Night ANGLING, *and Ground* ANGLING.

Great fiſh (but chiefly trouts) are ſhy, and fearful of enſnarements; and obſerve the moſt ſecure ſeaſon to ſeek their food, and that is at night.

For night angling you muſt provide large garden-worms; or inſtead of them, black ſnails: and having baited your hook with them, caſt them off at a diſtance, and then draw your line to you again upon the ſurface of the water, not ſuffering the bait to ſink; with which uſe not a leaden plummet, but only a float; but in ground-angling, you muſt uſe a plummet, without a float; and this method of ground-angling is very good in cold weather, for then the fiſh lie low.

You may eaſily hear the fiſh riſe, and therefore give him time to ſwallow the bait; and then gently give him a twitch to ſecure him.

If you find that the fiſh does not freely take the bait at the top of the water, put ſome lead to it, and ſink your bait, and proceed as in day-angling.

It has been obſerved, that the beſt trouts bite in the night, and do moſt commonly riſe in the ſtill deeps, ſeldom in the quick ſtreams. *See* BLADDER-ANGLING, DRABBLING, *&c.*

ANTICOR, (or *advant coeur*) is an inflammation in a horſe between his fore-legs, the ſame with a quinſy in mankind. Moſt writers are agreed, that this diſorder proceeds from hard riding, expoſing a horſe to the cold, and giving him cold water to drink when he is hot, full feeding, and whatever elſe may cauſe a ſudden ſtagnation of the blood. Some will have it to proceed from fatneſs and rank feeding.

This complaint, by SOLLEYSEL is ſuppoſed to be an inflammation of the pericardium, or bag which contains the heart, uſually terminating in a critical abſceſs in the cheſt; according to that experienced author, if the ſwelling aſcends to the throat, it is preſent death. This diſeaſe ſeems to be unknown in this country, and is, perhaps, peculiar to warmer climates. It is of the pleuretic claſs.

When you touch a ſwelling of this kind, the impreſſion of the fingers remains for ſome time, as if you had made them in a bit of puff paſte, filling up again by degrees, as the paſte would riſe. This ſwelling contains bloody water, that inſinuates between the fleſh and

and the ſkin, and proves that all the blood in the veins is corrupted.

The cure ſhould firſt be attempted by large and repeated bleedings, to abate the inflammation; and Mr. GIBSON approves of ſtriking one or other of the veins of the hind parts to make a revulſion. Next to bleeding, if the horſe be coſtive or bound in his body, clyſters are of uſe; and Dr. BRACKEN directs the following as a general one. Take leaves of mallows and pellitory of the wall, of each three handfuls; camomile flowers, one handful; anniſeed and ſweet fennel-ſeed, each half an ounce; linſeed, one ounce: boil theſe in three quarts of water to two; then ſtrain and preſs out the liquor ſtrongly, and add of caryocoſtinum electuary one ounce, common ſalt two ounces, and common plaiſter oil three ounces mixt. Theſe ſhould be injected through a very long pipe for the purpoſe, and as warm as a man can bear his cheek to the ſide of the bladder it is tied up in, and it ſhould be repeated every two or three days, as occaſion offers.

ANTLER, a ſtart or branch of a deer's attire.

Bes-ANTLER, the ſtart or branch next above the brow-antler.

Brow-ANTLER, the ſtart or branch next the head.

APOPLEXY, or FALLING-EVIL, a diſeaſe that ſeizes the heads of hawks, commonly by reaſon of too much greaſe and ſtore of blood; or becauſe they have been too long in the heat of the ſun, or have made too long a flight in the heat of the day: and as it is very cuſtomary with them to be full of greaſe in the mew: it is very good when they are empty to give them a little lard, or ſweet butter, ſoaked in roſe water, ſweetened with a little ſugar-candy pounded; but the beſt thing of all is, to draw their meat through black cherry water.

APOPLEXY, (in *Horſes*). *See* PALSY.

APOSTHUME, (in *Hawks*) a diſeaſe in the head, attended with ſwellings therein; occaſioned by divers ill humours, and the heat of the head: it may be diſcovered by the ſwelling of the eyes, by the moiſture that comes from their ears, and by their ſlothfulneſs.

For cure give them a pill of butter, as big as a nut, well waſhed in roſe-water, and mixed with honey of roſes and fine ſugar, for three or four mornings, when they have meat: they muſt be held on the fiſt till they have made one or two mewts, then take four drams of the ſeed of rue, two drams of hepatic aloes, and one ſcruple of ſaffron; reduce all to fine powder, and mix them with honey of roſes, and make a pill, and give them: it will purge and ſcour their heads; then about two hours after give them ſome good hot meat.

When the nares of a hawk are ſtuffed up with filth; after a convenient ſcouring, take pepper and muſtard-ſeed, beaten to a fine powder, put into a linen cloth, and ſteep it for ſome time in ſtrong white wine vinegar; of which put ſome drops upon her nares, that they may pierce in, and they will ſoon ſcour her head.

APPETITE, (LOSS OF). This ariſes either from errors in diet and management, want of graſs, or from conſtitutional or acquired debility. If the digeſtive powers of the horſe have been overburdened with accumulated feeds of corn, and at the ſame time evacuations and exerciſe neglected, nothing may be required farther than the oppoſite management. Maſhes for ſome days. Courſe of ſalts and cremor tartar; after an aloetic purge.

If a weak caſe, a run at graſs, and the mildeſt purging courſe on return. GIBSON adviſes to add to the purge of aloes and rhubarb, two drachms of elixir proprietatis prepared with oil of ſulphur by the ball. After the operation of each purge, to give the following drink, warmed in cold weather. *See* HORNED CATTLE.

Take a large handful of guiacum ſhavings; pomegranite bark, and baluſtines bruiſed, each one ounce; galangels and liquorice-root ſliced, each half an ounce; boil in two quarts forge water to three pints, and whilſt warm, infuſe in the decoction two drachms ſaffron, and half an ounce diaſcordium. It makes two drinks. OR. Chalybeate beer with bitters, taken once a day. Looſe ſtable. Walking exerciſe, or daily turning out in yard or paddock.

Some are off their ſtomach at moulting, or ſhedding their coats, when they require a ſomewhat ſharper regimen and comfortable maſhes, with cordial ball daily. Mares, in their horſing-time, will ſometimes loſe their appetite, when a gentle ſaline courſe is good, and afterwards cordial balls, once a day for a week. CRIBBITING may deſtroy the appetite, or induce *bulimia*. The only cure of that vice is to leave nothing in the way to lay hold on, as in a looſe ſtall with no rack or manger.

SOLLEYSEL, who was a moſt diligent and accurate obſerver, pretends horſes ſometimes loſe their ſtomachs, from "little worms lodged within the lips, above and "below, which cauſe ſuch an itching, that he is con- "tinually rubbing his lips againſt the manger. Theſe "worms appear like little puſhes when you turn back "the lips, and are diſlodged by cutting the uppermoſt "ſkin, where they appear, with a ſharp knife, and "rubbing with ſalt and vinegar." I have frequently noticed horſes rubbing their lips againſt the manger in the manner mentioned by this writer, but can pretend to no acquaintance with the lip-worm.

APPETITE, (CRAVING, or BULIMIA.) Horſes addicted to this, are commonly ſtyled FOUL FEEDERS: It may ariſe from an acid or acrimonious juice in the ſtomach, the conſequence of indigeſtion, and this may have for its cauſe either over repletion and want of exerciſe, or debility of the organs of digeſtion.

The proper cure is to cleanſe the firſt paſſages with abſorbents and purgatives, and ſhould the diſeaſe ariſe from debility, to uſe corroborants, as directed in the laſt caſe. Of abſorbents, none equal magneſia and ſalt of tartar, as they evacuate as well as abſorb, whereas chalk, and the teſtaceous powders, are apt to leave a load upon the ſtomach: but in weak caſes, joined with looſeneſs, theſe latter are preferable. To the purge, join diapente, one ounce and half.

Horſes in this ſtate will eat clay, wall, or dirt, wet foul litter, or even the dung of other horſes. Keep the ſtall clean, with freſh litter. In ſome horſes this conſtant deſire of eating is merely a habit, and of no great conſequence, ſince you can regulate their diet at will, and they can ſeldom devour clean ſtraw enough to injure them.

APPROACH-

APPROACHING, in Fowling, is a particular device to approach or come near thoſe birds that are ſhy, which frequent marſhy and watery places, without being ſeen by them.

This is performed by a ſort of machine, of three hoops tied together, all at proper diſtance, according to the height of the man that is to uſe it, and having boughs tied all round it, and with cords to bear on his ſhoulders; ſo that a man getting in is concealed by the boughs, and can approach near them unſuſpected till he comes within reach of ſhot.

As for herons, wild geeſe, duck, teal, *&c.* they are apt to keep the waters in the day-time, and on the meadows near the brinks of the rivers, and as far as they can from hedges and trees, for fear of being ſurprized; and when the water is 2 or 300 paces from trees, they will leave the middle of the ſtream, and muddle along the ſides of the river where the water is ſhallow; but when they perceive any body near, even a beaſt to paſs along, they will quit the ſides, and withdraw to the middle again.

Geeſe, ducks, and teals quit the water in the evening, and paſs the night in the fields, but in the morning return to the water: however you may eaſily approach them by means of a machine, as repreſented in the following figure, carried by a man, where he is concealed; and they may be ſhot whenever he is within a due diſtance from them. *See* Plate II.

To make this machine, take three ſmall hoops, which you are to tie with a cord in this manner; take a cord D, E, M, N, tie two ends together, and doing the ſame by the other two, divide the whole into four parts, and yet nothing muſt be cut; and faſten to every quarter *D*, *E*, *M*, *N*, another cord, five or ſix feet long, paſs the head of it through the middle, ſo that two of the cords remain before and the other behind; or elſe fix a piece of wood in the ground, the height of the man that is to carry the machine, put this cord upon it, and take a hoop F, C, L, O, which you muſt tie to the four quarters with the four cords, exactly to the height of the cincture; take another hoop, and tie it likewiſe to the four cords G, B, K, P, againſt the middle of the thighs, and the third in the like manner to the ſame cords, high as the ancles, and then place ſome very light branches of trees quite round theſe hoops, and tie them to three hoops, ordering them ſo that the birds may not ſee the perſon within the machine with his gun; but in caſe he finds that the birds ſeem to diſcern him, he muſt advance very gently towards them.

The birds, which keep moving continually, ſeeing him come near, will fancy it is themſelves that drew near the tree, and not the tree near them, by which means he may come near enough to fire upon them.

The beſt time to make uſe of this machine is in the morning, when the birds are returning out of the fields; for he may fire upon them as they paſs, becauſe they will not paſs all together, but in ſeveral flocks.

APPUI, or ſtay upon the hand, is the reciprocal ſenſe between the horſe's mouth and the bridle-hand, or the ſenſe of the action of the bridle in the horſeman's hand.

The true and right *appui* of the hand, is the nice bearing or ſtay of the bridle; ſo that the horſe, awed by the ſenſibility and tenderneſs of the parts of his mouth, dare not reſt much upon the bitt-mouth, nor chack or beat upon the hand to withſtand it.

Such a horſe has a dull, deaf, *appui*; that is, he has a good mouth, but his tongue is ſo thick that the bitt can't work or bear upon the bars; for the tongue being not ſenſible, or tender as the bars, is benumbed or hardened by the bitt: ſo the *appui* is not good. This and the following are terms uſed of an *appui*.

The bitt does not preſs the bars in the quick, by reaſon of the groſſneſs of the tongue, or elſe of the lips.

Your horſe has a reſt or ſtay that forces the hand, which ſhews that he has a bad mouth.

This horſe has no *appui*, no reſt upon the hand; that is, he dreads the bitt-mouth, he is apprehenſive of the hand, and he cannot ſuffer the bitt to preſs, or bear, though never ſo little, upon the parts of his mouth; and thus it comes to paſs he does not eaſily obey the bridle.

A horſe that is taught a good *appui*, if you mean to give that horſe a good reſt upon the hand, it behoves you to gallop him and put him often back; a long ſtretch gallop is very proper for the ſame end, for in galloping he gives the horſeman an opportunity of bearing upon the hand.

Such a horſe has too much *appui*, he throws himſelf too much upon the bitt; a horſe that has a fine ſtay or reſt upon the hand, *i. e.* equal, firm, and light, or one that obeys the bridle. *See* Hand.

A full *appui* upon the hand, is a firm ſtay, without reſting very heavy, and without bearing upon the hand.

Horſes for the army ought to have a full *appui* upon the hand.

A more than full reſt or *appui* upon the hand, is ſaid of a horſe that is ſtopped with ſome force; but ſtill ſo that he does not force the hand. This *appui* is good for ſuch riders as depend upon the bridle, inſtead of their thighs.

APRIL.

Of Fly-fiſhing in the Month of April; *or the Flies taken for fiſhing in that Month; or the making of artificial Flies.*

All the ſame tackles and flies that were taken in the month of *March*, will be taken in this month alſo; (ſee March) with this diſtinction only, concerning the flies, that all the browns be lapped with red ſilk, and the duns with yellow.

1. To theſe, a ſmall bright brown, made of ſpaniel's fur, with a light grey wing, in a bright day, and a clear water, is very well taken.

2. There is alſo a little dark brown, the dubbing of that colour, and ſome violet camlet mixt; and the wing of the grey feather of a mallard.

Alſo dub with the hair of a dark brown ſpaniel, or calf, that looks ruddy by being expoſed to wind and weather, warp with yellow. Wing dark ſtarling's feather. Taken from eight to eleven.

This

This is a good fly, and is to be ſeen in moſt rivers; but ſo variable in its hue, as the ſeaſon advances, that it requires the cloſeſt attention to the natural fly, to adapt the materials for making it artificially; which is alſo the caſe with the violet or aſh-coloured dun. When this fly firſt appears, it is nearly of a chocolate colour; from which by the middle of *May*, it has been obſerved to deviate to almoſt a lemon colour: northern anglers call it, by way of eminence, the dark brown; others call it, the four-winged brown: it has four wings lying flat on its back, ſomething longer than the body, which is longiſh, but not taper; this fly muſt be made on a ſmalliſh hook.

3. From the ſixth of this month to the tenth, there is a fly, called the violet-fly, made of a dark violet ſtuff, with the wings of the grey feathers of a mallard.

4. About the 12th of this month comes in the fly, called the whirling-dun; which is taken every day, about the mid-time of the day, all this month through; and by fits, from thence to the end of *June;* and is commonly made of the down of a fox's cub, which is of an aſh colour at the roots next the ſkin, and ribb'd about without yellow ſilk, the wings of the pale grey feather of the mallard.

Alſo you may uſe an artificial fly, called *the little whirling-dun*, which is made thus: the body fox-cub, and a little light ruddy brown mixed, warp with grey or ruddy ſilk, a red hackle under the wing; wing of a land-rail, or ruddy brown chicken, which is better.

A killing fly in a bluſtering day, as the great whirling-dun is in the evening, and late at night.

5. There is alſo a yellow dun; the dubbing of camel's hair, and yellow camlet, and wool mixt, and a white grey wing. Alſo dub with a ſmall quantity of pale yellow crewel mixed with fox-cub down from the tail, and warp with yellow; wing of a paliſh ſtarling's feather.

Taken from eight to eleven, and from two to four.

6. There is alſo this month another little brown fly, beſides that mentioned before, made with a very ſlender body, the dubbing of dark brown and violet camlet mixt, and a grey wing; which though the direction for making be like the other, is yet another fly, and will take when the other will not, eſpecially in a bright day and clear water.

7. About the 20th of this month comes in a fly, called the horſe-fleſh fly; the dubbing of which is a blue mohair, with pink-coloured and red tammy mixt, a light-coloured wing, and a dark brown head. This fly is taken beſt in the evening; and kills from two hours before ſun-ſet till twilight, and is taken the month through.

To the former flies may be added:

1. LIGHT BLOA. Body, light fox-cub fur, a little light foal's hair, a little ſquirrel's bloa, and the whitiſh yellow of the ſame, all theſe well mixed together; warp with yellow ſilk: wing, of a light fieldfare's feather.

2. DUN. Body, dunneſt filmert, or martern's fur; *Indian* fox-dun; light dun fox-cub; coarſe hair of the ſtump of a ſquirrel's tail of a brightiſh brown, or a yellowiſh caſt; warp with yellow ſilk: wing, the light feather of a fieldfare.

3. PLAIN HACKLE. Body, black oſtrich herl, with red or black cock's hackle over it; and in hot weather add gold twiſt.

4. RED HACKLE. Body, red ſilk and gold-twiſt, and a red cock's hackle till *June*. Afterwards uſe orange ſilk for the body. An excellent fly.

N. B. This is more properly the orange-fly. It reſembles in colour a *Seville* orange. Wings may be added, either of a ruddy hen or chicken, or of the ſofteſt feather of a rook's wing; the firſt will give it an orange, the latter a dunniſh hue. It has four wings, two next the body, of a very dark grey colour, and two ſerving as a caſe over them, ſometimes of a dirty blackiſh colour, and ſometimes of an orange colour.

5. BLOA WATCHET. Is a ſmall fly, and appears on the water in a cold day, (hook No. 9 or 10, *in Plate Angling*) the body, fur of a water-rat, black part of a hare's ſcut, the pale roots cut off, a very little brown bear's hair: warp with pale brown, or olive-coloured ſilk: wing, of a hen blackbird.

6. YELLOW WATCHET. Body, water-rat's fur, the blackeſt part of a hare's ſcut, greeniſh yellow crewel for feet; warp with green ſilk: wing, the lighteſt part of a blackbird's feather.

7. KNOTTED-GREY GNAT. Body, darkeſt part of a hare's ſcut, dark brown foal's hair, dark fur of the back of an old fox; warp with grey ſilk: wing, the bloa feather of a fieldfare.

8. GREEN-TAIL. Body, dark part of a hare's ſcut, and darkeſt bloa fur of an old fox: light part of a ſquirrel's tail, and a hair or two of the coarſe browniſh part of it for feet; warp with aſh-coloured ſilk: wing, of a hen pheaſant.

9. SAND FLY. Body, dark brown foal's hair, a little bloa ſquirrel's fur, and the whitiſh yellow of the ſame; warp with yellow ſilk: wing, the light part of a fieldfare's feather.

10. BRIGHT BEAR. Dubbing, of bright bear's hair, warped with ſad cloth-coloured ſilk: wings, of a ſhepſtare's quill feather: others dub the body with yellow ſilk, which is better.

11. YELLOW DUN. Dubbing, of yellow wool, and aſh-coloured fox-cub down mixed together, dubbed with yellow ſilk: wings, of the feather of a ſhepſtare's quill: others dub it with dun-bear's hair, and the yellow fur got from a martern's ſkin, mixed together, and with yellow ſilk: wings, of a ſhepſtare's quill-feather. Make two other flies, their bodies dubbed as the laſt; but in the one mingle ſanded hog's down: wings, of a ſhepſtare's quill-feather: and there is alſo taken an excellent fly, made of dun-bear's hair, yellow martern's fur, ſanded hog's down, and black hog's down, all mixed in equal proportion together; warped with yellow ſilk: wings, of the feather of a ſhepſtare's quill. Theſe ſeveral flies mentioned for *April*, are very good, and will be taken all the ſpring and ſummer.

AQUATIC, that lives, breeds, or grows, in or about the water; as aquatic animals, plants, *&c.*

ARABIAN HORSE. Gentlemen and merchants who

who have travelled thoſe parts, report, that the right *Arabian* horſes are valued at an incredible and intolerable price; being valued at 500*l.* and as others ſay, at 1, 2, and 3000*l.* an horſe: that the *Arabs* are as careful of keeping the genealogies of their horſes, as princes in keeping their pedigrees; that they keep them with medals; and that each ſon's portion is uſually two ſuits of arms, and one of their horſes.

The *Arabs* boaſt, that they will ride fourſcore miles without drawing bitt; but this has been performed by ſome of our *Engliſh* horſes: and much more was done by a highwayman's horſe, who having committed a robbery, on the ſame day rode from *London* to *York*, being 150 miles.

Notwithſtanding their great value, and the difficulty of bringing them from *Scandaroon* to *England* by ſea, yet by the care, and at the charge of ſome breeders in the north of *England*, the *Arabian* horſe has been no ſtranger to thoſe parts; and perhaps at this day ſome of the race may be ſeen there, if not the true *Arabian* ſtallion. *See* STALLION.

Mr. LAWRENCE, in his Treatiſe on Horſes, ſays, the far greater part of thoſe horſes brought over to this country, under the general appellation of *Arabians*, have never ſeen *Arabia*, or have been of its inferior breed. They are uſually purchaſed in the *Levant*, *Barbary*, or the *Eaſt-Indies*, by perſons totally unacquainted with horſes, or at any rate with the peculiar purpoſe for which ſuch horſes are deſigned; hence a number of inferior and half-bred *Arabians* have been brought over at a uſeleſs expence, to deteriorate, inſtead of amending, our racing breed, and to bring *Arabian* blood into diſrepute. He had ſeen about a ſcore ſouthern horſes, called *Arabians*, at different times, not one among which appeared to be a true mountain horſe. Thoſe which were lately at the Veterinary College, and which were imported from *India*, were evidently of a mixed breed; and the *Arabian* at *Hampſtead*, appeared upon the ſlighteſt ſurvey, to be no more than a three-part bred horſe, well adapted to get ſaddle and coach-horſes. Theſe remarks may ſerve to account for the defects of the new blood, as it has been ſtyled upon the turf; and as ſufficient reaſons why the produce of *Arabians* ſo ſeldom run their courſe through.

The horſe next in quality to the *Arab*, is the Mountain Barb: this approximation ariſes from ſimilarity of climate probably, and from an attention to pedigree by the great men, and other inhabitants of *Barbary*. The Barb is leſs than the *Arabian*, very deep breaſted, but rather of aſinine or muliſh appearance; if genuine, he gets true and ſtout runners.

A material queſtion ariſes here, have we any farther occaſion for *Arabian* blood, and will not our *Engliſh* courſer degenerate, in proceſs of time, without an occaſional recurrence to the parent ſtock? I will take upon me to anſwer this queſtion in part, or rather I have already done it: we can have no ſort of need of ſuch foreign horſes as are uſually imported, for the plaineſt reaſon in the world, we poſſeſs much better of our own native ſtock. But this makes nothing againſt the propriety of endeavouring to obtain genuine *Arabian* courſers. We ought never to remain ſtationary and ſatisfied while there exiſts a poſſibility of improvement; the vaſt advantages reſulting from the accidental importation of a very few real good horſes has been amply proved, and in my opinion, the proſecution of a concerted plan for obtaining a further ſupply, would be an object not unworthy the attention of a gentleman of the turf, either in the view of curioſity or profit; the plan beſt adapted to that end is matter of inquiry.

I have never heard, that any properly qualified perſon has been ſent to *Arabia* for the purpoſe of purchaſing horſes, nevertheleſs I believe ſuch to be the only probable method of obtaining the genuine ſtock in requeſt. The tenaciouſneſs of the *Arabians* of their higheſt bred horſes, has been long known, and very few, or none of ſuch, ever find their way to the great fairs in the eaſtern countries, where the common *Arabian*, and other eaſtern horſes, are uſually purchaſed.

The following is the beſt account of the *Arabian* horſes which I have been able to obtain, either from reading or inquiry. They have in that country, three diſtinct breeds, or rather, two varieties from the original genus; from analogy of qualification the three claſſes may be properly enough compared with our racers, hunters, and common bred horſes. The diſtinctive appellations of the *Arab* horſes are, Kehilani or Cocklani, Kehidiſchi or Guideſki, and Attickí. The firſt, or Cocklani, are the original genus, bred in the middle or mountainous country, where it is ſaid a few are yet to be found in the wild, or natural ſtate. The *Arabs* pretend to have pedigrees of this illuſtrious race, upwards of two thouſand years old; but whether their private records accord with truth exactly or not, is of little moment, ſince the antiquity and character of the Mountain *Arabian* horſe has the fulleſt ſanction of both ancient hiſtory and modern experience. The Attickí, or inferior breed, may probably have been the original produce of the low country, and the middle variety may have reſulted from a mixture of mountain and low-country ſtock. The *Arabians* are ſeldom willing to part with their beſt mares, at any price; and the value of a true bred one, whether horſe or mare, is ſaid to amount to ſeveral hundred pounds in the country.

The *Arabian* horſes are fed with dates, milk, and corn; it is not to be ſuppoſed, that in ſuch a country, they have the ample allowance of corn, uſual in this; nevertheleſs it is confidently aſſerted, that the ſuperior breed of them will travel eighty or a hundred miles in a day, for ſeveral ſucceſſive days, over the ſand and ſtones of that ſultry climate. Dr. BLUMENBACH, who has within theſe few years written a celebrated treatiſe on the native varieties of the human ſpecies, ſays, "that all animals deſtitute of the dark pigment of the "eye, are a mere altered breed." How far that obſervation is entitled to dependance, I have never had an opportunity to conſider or examine, but the purchaſe of a particular breed of animals would ſurely be leaſt liable to deception in the original country where they were bred. The external characteriſtic of original genus, is uniformity, or univerſal ſymmetry; and the true-bred *Arab* is diſtinguiſhed by his ſilken hair, and ſoft flexible ſkin, deer-like hoofs and paſterns, ſmall muzzle, full eye, ſmall well-turned head, joined to the

the neck with a curve, capacious ſhoulders, extenſive angle of the hock, length and extent of thigh, large ſinews, and flat bones. I have often obſerved that convulſive ſnatching up, and turning out the feet, in the gait of horſes ſaid to be *Arabians*, and have ever looked upon it as the indication of a ſpurious breed; the beſt *Arabs*, which I have ſeen, having been good goers, many of them true daiſey cutters. The pawing method of going, cannot always be the conſequence of menage, ſince I have remarked it to deſcend from a reputed *Arabian*, through ſeveral generations.

ARCHED LEGS; a horſe is ſaid to have arched legs when his knees are bended archwiſe.

This expreſſion relates to fore-quarters, and the infirmity here ſignified, happens to ſuch horſes as have their legs ſpoiled with travelling.

The horſes called Braſſicourts, have likewiſe their knees bended arch-wiſe; but this deformity is natural to them.

ARM OF A HORSE. *See* FORE THIGH.

To ARM. A horſe is ſaid to arm himſelf when he preſſes down his head, as if he would check, and bends his neck ſo as to reſt the branches of his bridle upon his counter, in order to diſobey the bitt mouth, and guard his bars and his mouth, which are relieved by over-bending his neck.

Since your horſe arms himſelf, give him a knee'd branch that will raiſe him, and make him carry his head well. *See*, TO CARRY LOW.

ARM WITH THE LIPS.

A horſe is ſaid to arm himſelf with the lips, when he covers his bars with his lips, and makes the preſſure of the bitt too deaf and firm; this is commonly done by thick-lipped horſes. You muſt order your bitt-maker to forge you a bitt-mouth, with a cannon, or ſcratch-mouth, that is broader near the bankets than at the place of its preſſure, or reſt upon the bars; and this will hinder your horſe from arming himſelf with his lips.

Sometimes we ſay, the lips arm the bar; *i. e.* cover, or ſcreen it. *See* DISARM.

ARMAN, a confection of wonderful efficacy to prevent a total loſs of appetite in horſes. *See* DRENCH.

ARRESTS, are mangy humours upon the ſinews of the hinder legs of a horſe, between the ham and the paſtern. They ſeldom appear upon the ſhank ſinew.

Their names are taken from their likeneſs to the arreſts or the ſmall bones of a fiſh. *See* RAT-TAIL.

ARZEL, a horſe is ſaid to be arzel, that has a white mark upon his far-foot behind.

Your ſuperſtitious cavaliers perſuade themſelves, that by an unavoidable fatality, ſuch horſes are unfortunate in battle: and ſuch is the ſtrength of their prejudice that they do not care to uſe them.

ASS, a quadruped, in many reſpects reſembling the horſe, though by no means equal in beauty and ſymmetry to that noble animal. It has a long head and ears, a body round, and covered with a coarſe ſhort fur, of a light dun colour; a black ſtreak down its back and acroſs its ſhoulders; a tail buſhy at the end, but rather bare of hair on the upper part; it is ſlow, lazy, and dull; patient under hard labour, and proper to draw or carry heavy loads. It is ſubject to but few diſtempers, lives on little, and is very ſerviceable. When looſe, it will find its own living, ſummer and winter, unleſs the ſnow be very deep on the ground, feeding on thiſtles, carix, and other rough and prickly herbs. When the weather is ſevere and the ſnow deep, it muſt be houſed and ſtand particularly dry, as its nature is addicted to phlegm and melancholy; it muſt be fed with ſweet ſtraw, cut ſhort, and chaff or peaſe-haume: it will alſo eat biſcuit, or coarſe bread, which is very nouriſhing.

ASSES, *choice of, and time of covering.* Chooſe the largeſt and faireſt, as well as the ſtrongeſt in proportion of limbs, and of a ſound conſtitution; if they are not ſound it is denoted by the hanging of the ears, dulneſs of their eyes, and ſhortneſs of breathing; aſſes with either of theſe imperfections ſhould be rejected. The male ſhould be at leaſt three years old; from thence to ten he will be ſufficiently ſerviceable, but, when paſt that age, declines. The female at two years old will bring forth fine luſty colts, though, for a ſtrong labouring breed, you may ſuffer her to be two years and a half or three years old before ſhe takes the male; and when ſhe has been covered let her be driven about for the ſpace of an hour or an hour and a half, that ſhe may retain the ſeed. She brings forth her foal in a twelvemonth, but, to preſerve a good breed, ſhe ſhould not produce more than one in two years. The beſt time of covering is from the latter end of *May* to the beginning of *June*, nor muſt the female be hard worked whilſt with foal, for fear of caſting; but the more the male is worked, in moderation, the better he will thrive, as it takes away his leacherouſneſs, which, if idle, pines and conſumes him.

ASSES, *ordering, breaking, &c. of.* When the foal is caſt, it is proper to let it run a year with the dam, and then wean it by tying up and giving it graſs, and ſometimes milk; and, when it has forgot the teat, turn it out into paſture, but, if it be in winter, you muſt then feed it at times, till it be hardened to ſhift better for itſelf.

At two years old break him, or if he be of a good growth let it alone till longer, as at three years, and this may be eaſily done by laying ſmall weights on his back, and increaſing them by degrees; then ſet a boy upon him, and ſo increaſe the weights as you think fit, which is ſufficient for him to bear. Theſe creatures above all things delight not in wet, and very nicely touch the water in drinking, as if they feared it, which ſome attribute to their ſeeing the ſhadow of their ears in the water, which affrights them, but I attribute it rather to their flegmatic conſtitution. They are often troubled with dreams, which make them moan and cry out in their ſleep, proceeding from much melancholy, to which they are greatly inclined; and indeed travelling and lying in the wet is a great injury to them, and from it proceeds moſt of the diſeaſes they are afflicted withal. Put them not up in ſtrait rooms, leſt in their dreams they beat and bruiſe themſelves againſt the ſides of them, and indeed they require large rooms and hilly ground.

ASSART, an offence committed in a foreſt, by

plucking up thoſe woods by the roots that are thickets or coverts to the foreſt.

ASTHMA, IN FARRIERY, is either moiſt or dry: the moiſt, is when there is a free diſcharge of matter by the noſtrils in conſequence of coughing; the dry, is when the cough produces little or no diſcharge.

The moiſt aſthma is a cough that proceeds from a load of phlegm, or of ſlimy matter, diſcharged into the veſſels of the lungs, occaſioning difficulty, and ſometimes great oppreſſion in breathing: it is manifeſted by the following ſymptoms: the flanks have a ſudden and quick motion; the horſe breathes ſhort, but not with his noſtrils open, as is obſerved in horſes that are feveriſh or broken-winded: he firſt wheezes ſome time, and rattles in his throat; then he coughs; and this cough is ſometimes dry, at others it is moiſt: he frequently ſnorts after coughing, and throws up pieces of phlegm through the mouth or noſe; and after drinking he frequently does the ſame; he alſo does the ſame at the beginning and ending of his exerciſe: this diſcharge gives him conſiderable relief. Some horſes wheeze ſo exceſſively, and are ſo extremely ſhort-winded, that they cannot eaſily move until they have been gently exerciſed for ſome time in the air; though after that they will go through their work to admiration.

This moiſt aſthma ſhould carefully be diſtinguiſhed from that purſiveneſs and thick-windedneſs which full or foul feeding occaſions; alſo from the ſame ſymptom when it is occaſioned by a want of exerciſe, or taking up a horſe from winter-graſs; in which caſes the former is cured by a decreaſe, and the latter by an increaſe of feeding.

Aſthmatic complaints, whether the moiſt or the dry, are uſually tedious and obſtinate; but if the horſe is young, and the diſeaſe not of long ſtanding, a recovery is ſometimes brought about. The exerciſe ſhould be moderate, and in open air; the diet ſhould be ſparing, for, in all diſeaſes of the lungs a full ſtomach renders the oppreſſion greater: their hay ſhould be of the beſt ſort, always ſprinkled with water, given in ſmall quantities, and the oftener in proportion, as there is leſs at one time: their corn and water ſhould be managed with the ſame care.

If the horſe is full of rich blood, bleed freely, and repeat the operation as often as the oppreſſion and the difficulty of breathing may require: if his blood is poor, proportionably leſs ſhould be taken away; and unleſs the caſe be very urgent, bleeding may be omitted.

Give over night a bolus with two drachms of calomel, and next morning the following purging ball:

Take one ounce of aloes; of gum ammoniacum, aſſa-fœtida, galbanum, and oil of anniſeeds, of each two drachms; treacle, enough to make them into a ball.

This bolus and purging ball may be repeated at due diſtances of time, and on the days free from purging give every morning one of the following pectoral balls.

Pectoral Ball.

Take of the cordial ball, half an ounce; of powdered ſquills and Barbadoes tar, (or, in its ſtead, the common balſam of ſulphur) of each two drachms: make them into a ball for one doſe. Or,

Take gum ammoniacum, aſſa-fœtida, galbanum, and liver of antimony, of each two ounces; freſh ſquills, enough to form a paſte; which make into balls of from one to two ounces each, according to the greater or leſs violence of the diſeaſe.

The dry aſthma, called alſo the nervous aſthma, is a cough proceeding from ſome irritation on the nerves in the membranous part of the lungs and midriff; but there is not any thing diſcharged by it except a little clear water from the noſe, notwithſtanding the violence of the cough, and its continuance when once begun, which for ſome time is almoſt inceſſant; the coughing-fits have no regular return; they are more frequent when walking than in other exerciſe, except when ſuddenly ſtopt after hard riding, &c. on which occaſions the cough is very troubleſome; after drinking it is troubleſome too: and a change of weather will ſometimes make it very teazing for two or three days; but it is generally worſt in a morning. Sometimes, when no particular circumſtance occurs to diſorder the horſe, the cough will be ſeldom heard for a week or two together; and yet, though this cough is ſo teazing, the horſe eats heartily, hunts, and performs his buſineſs very well; if he is tolerably treated, he keeps a good coat, and maintains moſt of the uſual ſigns of health.

At eight years of age the dry aſthma commonly makes its appearance. The cough may begin at four or five, and at times be very violent; but at eight, and after, he labours with his flanks, and that in the greateſt degree after feeding: he hath now an almoſt conſtant working of his noſtrils, and a motion of his fundament; after which it uſually terminates in broken wind, or in death.

Bleeding in moderate quantities is more or leſs neceſſary, according to the ſtrength of the horſe, and the difficulty of breathing; after which give the following bolus at night, repeat it the next night, and on the morning following work them off with a proper purge.

The Preparative Bolus.

Take calomel, two drachms; and honey, enough to make a bolus.

In eight or ten days repeat one bolus at night, and the next morning repeat the purge.

During the operation of theſe medicines, it is neceſſary to keep the horſe well clothed and littered: and he ſhould be well ſupplied with ſcalded bran and warm water.

After the ſecond purge give one of the following balls every morning, letting him faſt two hours after each, and continue their uſe for two months, or longer.

Aſthmatic Balls.

Take antimony, finely levigated, half a pound; gum guaiacum, four ounces; myrrh and gum ammoniacum,

niacum, of each two ounces; Venice ſoap, half a pound; honey or treacle, enough to make a maſs, of which two ounces may be taken for one ball. Or,

Take gum ammoniacum, freſh ſquills, and Venice ſoap, of each four ounces; annifated balſam of ſulphur, one ounce; make them into a maſs, of which two ounces may be made into a ball.

If the diſeaſe be obſtinate, the bolus with calomel may be repeated at proper intervals, with or without the purge, taking care that it does not ſalivate.

On diſſecting horſes that have laboured under the dry aſthma for ſome time, the heart and the organs of reſpiration appear ſomewhat enlarged: which preternatural enlargement is an effect of the continual labouring with the breath, and not the cauſe of the diſeaſe. *See* BROKEN WIND.

ATTACHMENTS, (COURT OF) a court belonging to the foreſt, wherein the officers do nothing but receive the attachments of the foreſters, and inroll them in the verdurer's rolls, that they may be in readineſs againſt the time that the court of *Swainmote* is kept; for that this court cannot determine any offence or treſpaſs, if the value thereof be above four-pence; for all above that value muſt be inrolled in the verdurer's rolls, and ſent from thence to the court of *Swainmote*, to be tried there according to the laws of the foreſt.

For notwithſtanding the greateſt part of all the preſentments do firſt begin in this court, yet this court cannot proceed farther therein; neither is a preſentment in this court any conviction againſt the offender in thoſe offences, becauſe he may traverſe the ſame, until it has paſſed the court of *Swainmote;* to which all treſpaſſes preſented at the court of attachments muſt neceſſarily come, before the offenders can be puniſhed, or ſtand convicted, as guilty in law of their offences.

ATTAINT, is a blow, or wound, received by a horſe in his inner feet, from another horſe that follows him too cloſe: or from an over reach in froſty weather, when a horſe being rough ſhod, or having ſhoes with long calkers, ſtrikes his hinder feet againſt his fore legs, or leg. This word is likewiſe uſed to ſignify a blow that the horſe's foot receives from the fore, or hinder oppoſite foot; or a blow given by one of the hinder feet ſtriking againſt the cronet of the fore foot. Hence they ſay,

Your horſe could not have given himſelf a ruder attaint: for I find with the probe, that it penetrates between the hoof and the coffin bone, which give reaſon to ſuſpect that the tendon is affected, and that the attaint reaches to the cronet.

Upper attaint is a violent blow given with the two hind feet, upon the ſinew of the fore legs.

To cure an attaint, firſt clip away the hair, and the battered ſkin or fleſh which you will find hang looſe and uſeleſs; then waſh the dirt from it with water and ſalt, and anoint it with neat's-foot oil, or mutton ſuet; after this dip a wad of flax in the whites of eggs, and bind it hard on the wound. Repeat the wad daily till healed.

ATTIRE OF A DEER. Of a ſtag, if perfect, is called the burr: the pearls, (the little knobs on it) the beam; the gutters, the antler; the ſur-antler royal, ſur-royal; and all at top the croches.

OF A BUCK; the burr, the beam; the brow-antler, the fur-antler; the advancer, palm, and ſpellers.

If croches grow in the form of a man's hand, it is then called a palmed head. Heads bearing not above three or four, the croches being placed aloft, all of one height, are called crowned heads: heads having doubling croches, are called forked heads; becauſe the croches are planted on the top of the beam, like forks.

If you are aſked what a ſtag bears, you are only to reckon the croches he bears, and never to expreſs an odd number: as if he hath four croches on his near horn, and five on his far; you muſt ſay, he bears ten, a falſe right on his near horn, (for all that the beam bears are called rights:) but if four on the near horn, you may ſay he bears twelve, a double falſe right on the near horn: for you muſt not only make the number even, but alſo the horns even with that diſtinction.

AVANCERS, the ſame as ADVANCERS.

AUBIN, is a broken going, or pace of a horſe between an amble and a gallop: which is not eſteemed.

AVERTI, a French word uſed in the manage, as applied to the pace or motion of a horſe: ſignifying a motion that is injoined, regulated, and required in the leſſons.

Pas ecoute, and Pas d'ecole, (*i. e.* liſtening paces, or ſchool paces) ſignify the ſame thing.

AUGUST, the flies of this month are the ſame as uſed in *July;* which ſee.

1. Then another ANT-FLY, the dubbing of the black brown hair of a cow, ſome red warpt in for the tag of his tail, and a dark wing: a killing fly.

2. Next, a fly called the FERN-FLY; the dubbing of the fur of a hare's neck; and that is of the colour of fern, or brackin; with a darkiſh grey wing of a mallard's feather. A killer too.

3. Beſides thoſe, there is a white hackle; the body of white mohair, and wrapped about with a white feather; and this is aſſuredly taken for thiſtle-down.

4. We have alſo this month a HAIRY LONG-LEGS; the body made of bear's-dun, and blue wool, mixt, and a brown hackle feather over all.

5. Alſo another made of lightiſh bear's hair and a dunniſh hackle; add a few hairs or light blue mohair and a little fox-cub down, warp with light grey or pale blue ſilk; the head large, the latter is to be uſed chiefly in a cloudy windy day, with a long line, and the head of this inſect only.

The PEACOCK HACKLE, and three following flies of *May*, and the two ſubſequent months; and the brown of the laſt month, ſerve alſo for this; in which alſo are taken the

1. GREY-FLY. Body, light grey foal's hair mixed with the dark part of a hare's ſcut; warp with grey ſilk: wing, a hen-pheaſant's feather.

2. BLACK ANT-FLY. Body, darkeſt part of a hare's ſcut, and dark brown wool, or ſheep's ruſſet, equally mixed, and one ſingle ruddy herl of a peacock, all twiſt-

ed together; warp with copper-coloured ſilk: wing, a fieldfare's feather.

3. BROWN ANT-FLY. Body, bright brown bear's hair, much weather beaten, almoſt of an orange colour towards the tail, and therefore a few hairs of a light brown, or flame coloured calf, or ſpaniel's hair to be added in the tail part; warp with orange-coloured ſilk: wing, the light feather of a fieldfare or ſtarling.

Note. The following method of imitating the *black* and *brown* ANT-FLY with other materials, has been found to ſucceed.

1. BLACK-ANT. Brown bear's hair, and a little grey ſquirrel's hair next the roots, peacock herl; warp with copper-colour or aſh.

2. BROWN-ANT. Light barge-ſail, ſeal's fur and brown bear's hair, peacock herl; warp with orange: wings of this and the former, ſtarling's feather longer than the body.

3. BUSS-BROWN. Dubbing, of the light brown hair of a cur; the head black: wings of the feather of a red hen; warped with orange-coloured ſilk.

4. HEARTH-FLY. Dubbing, of the wool of an old black ſheep, with ſome grey hairs in it, for the body and head: wings of a light ſhepſtare's quill-feather, warped on with black ſilk.

5. PISMIRE-FLY. Dubbing, of bright brown bear's hair, warped with red ſilk: wings of the ſaddeſt-coloured ſhepſtare's quill-feather. A good fly.

AVIARY, a place ſet apart for feeding and propagating birds. It ſhould be ſo large as to give the birds ſome freedom of flight, and turfed to avoid the appearance of foulneſs on the floor.

AIRY, or AERY, a neſt or company of hawks or eagles, ſo called from the old French word *aire*. See HAWK.

BABBLING, is ſaid of hounds which are too buſy after they have found a good ſcent.

BACK. To back a horſe, or mount a horſe, *ados*, is to mount him bare-backed or without a ſaddle. A weak-backed horſe is apt to ſtumble: ſuch a horſe defends himſelf with his back, is when he leaps and plays with his fillets, and doubles his reins to incommode his rider.

SHORT-BACKED. It is a common obſervation, that a horſe which wants length in the back will be ſure to have it in ſome improper place, the legs for inſtance. Short-backed ſtallions are very apt to get leggy, ſpider-ſhaped ſtock. A horſe which ſtands over a good deal of ground, may be a goer, merely by virtue of his general length, if his ſhoulder be not too unfavourably made.

The ſpine, being too ſhort, is not ſufficiently pliable, and the want of room between the ribs, and hip-bones, occaſions the entrails to be ſo preſſed towards the lungs in action, as in a conſiderable degree to impede reſpiration. Length of back will always be found advantageous, when there is ſufficient general ſubſtance, and particularly, width and ſwell of the muſcles in the loins and fillets; but ſhort backs are infinitely to be preferred to long, thin ſhapes, with hollow flanks, and narrow weak loins.

HOLLOW BACKS are apparently weak, and the curvature of the ſpine muſt in degree hinder action, as well as all other irregularities of form. Horſes of this form, have ſometimes a very elevated creſt, look handſomely mounted, give an eaſy, convenient ſeat, and are pleaſant goers. High, or BREAM-BACKED horſes, throw the ſaddle forward, and are liable to be galled by it, and are often hard ſtumping goers. But a horſe (unleſs a capital one be the object) muſt never be rejected, merely on account of being either hollow, or ſwine-backed.

BACK: to eaſe a pain in the back of a horſe; bruiſe well together the following ingredients, heat them over a fire, and apply them to the part as hot as the horſe will bear it, as a poultice:

Of new cow-dung, two ounces; the roots of burdock, waſhed and ſliced, two ounces; borage and bugloſs, of each a handful; and oil of bays, ſix ounces.

BACK *of a* HORSE, to ſtrengthen. A weakneſs in the back frequently happens in conſequence of cold and watery humours affecting the ſinews, or of jellied water ſettling in the joints, or too often covering mares. To remedy this diſorder,

Take horſe-radiſh roots, a pound; bay-leaves, two handfuls; and the bark of elder, the like quantity; boil theſe in man's urine, and with the liquid bathe the back as hot as convenient, giving him for diet, oats and ſplint beans; and each morning, faſting, a ball about the ſize of a pigeon's egg, made of the following articles:

Liquorice powder, two ounces; hartſhorn beaten to powder, one ounce; fenugreek and hyſſop-ſeed, ſteeped, of each two ounces; and add as much Malaga wine as will make it a ſtiff paſte.

BACK, in the *Manege*, and among *Farriers*. A horſe's *back* ſhould be ſtraight, not hollow, which is called *ſaddle-backed;* horſes of this kind are generally light, and carry their heads high, but want in ſtrength and ſervice. A horſe with a weak back is apt to ſtumble.

In the French riding-ſchools, to mount a horſe *à dos*, is to mount him bare-backed, without a ſaddle.

BACK-WEN, *in Horſes*, a diſorder cauſed by the aſſembling of bad humours to one place, and there contracting into a tumour. To remove them,

Take the oil of bays, water of tartar, and ſoap-boilers' lees, mix them well; and being very hot, dip a cloth therein, and lay it upon the place affected, and continue often ſo to do; and, the humours thereby being diſperſed, the ſwelling will ſink and diſappear.

BACK-SWAYED, is a pain and weakneſs in the reins, cauſed by a fall, carrying of ſome heavy burdens, or ſome other violent accident; and ſometimes the horſe is alſo hurt inwardly, which brings him into the greateſt diſorder imaginable.

REMEDY.

Take a plentiful deal of blood from the neck, after which apply thoſe things that are proper to promote ſweat, ſuch as ſweating in a dunghill, if the common remedies fail: his diet muſt be opening, and the greateſt care taken to prevent a fever. He ought to be girt

pretty

pretty firm over his reins, yet not ſo as to hinder the motion of his flanks, he ought alſo to be hung up, or kept in a ſteady poſture; but, if the weakneſs continues, you may proceed to give the fire, which muſt be done by piercing the ſkin, avoiding as much as poſſible to burn him near the flanks, otherwiſe it will be apt to create a violent ſwelling in the ſheath, which would very ſoon bring on a fever.

Strains in the hips are to be accounted for in the ſame manner as thoſe in the back and ſhoulders, only they are not ſo apt to create a fever as the ſwaying of the back. Sometimes the round head of the thigh-bone is by the violence of the accident thruſt out of its ſocket, and then a horſe is ſaid to be *hip-ſhot;* but if it is not reduced immediately, he will be irrecoverably lame. The cure conſiſts in the ſame applications that are proper for a ſhoulder-ſplait.

BACKING A COLT, after he has been exerciſed ſome time, morning and evening, and you find him obedient, as directed under the head of COLT; and when you have made him trot a good pace about in your hand, ſee whether your tackling be firm and good, and every thing in its true and proper place; when having one to ſtay his head, and govern the chafing rein, you may take his back, yet not ſuddenly, but by degrees, with divers heavings and half-riſings, which if he endure patiently, then ſettle yourſelf; but if he ſhrink and diſlike it, then forbear to mount, and chaſe him about again, and then offer to mount, and do this till he be willing to receive you.

After you are ſettled, receive your ſtirrups, and cheriſh him, put your toes forward, let him that ſtays his head lead him forwards half a dozen paces, then cheriſh him again, ſhake and move yourſelf on the ſaddle, then let the ſtayer of his head remove his hand a little from the caveſon, as you thruſt your toes forwards, let him move him forward with his rein, till you have made him apprehend your own motion of the body, and foot, which muſt go equally together, and with ſpirit alſo, that he may go forward without the other's aſſiſtance, and ſtay upon the reſtraint of your own hands; then cheriſh him, and give graſs, and bread to eat; alight from his back, mount and unmount twice or thrice together, ever mixing them with cheriſhings; thus exerciſe him, till he be made perfect in going forwards, and ſtanding ſtill at pleaſure; this being done, the long rein may be laid aſide, and the band about the neck, and only uſe the trenches and caveſon with the martingal, and let the groom lead the way before, or another horſe going only ſtrait forwards, and make him ſtand ſtill when you pleaſe, which will ſoon be effected by trotting after another horſe, ſometimes equal with him, ſometimes before, ſo that he fix upon no certainty but your own pleaſure, and be ſure to have regard to the well carriage of his neck and head, and as the martingal ſlackens, ſo ſtraighten it from time to time.

BACK WORM, or filander; a diſeaſe incident to hawks.

Theſe worms are about half a yard long, trouble the birds very much, and in time will kill them; they lie wrapt up in a thin ſkin about the reins, and proceed from groſs and viſcous humours in the bowels, occaſioned through ill digeſtion and want of natural heat.

This diſtemper is eaſily diſcerned by theſe ſymptoms, *viz.* by the hawk's ſtinking breath, caſting her gorge, croaking in the night, trembling, ruffling, and writhing her tail; by the muting, which is ſmall and unclean; and alſo by keeping at a ſtay in a low ſtate of health.

The back worm is rarely quite killed, but a careful falconer giving her cloves of garlic, ſteeped in wormwood once a month, and once a fortnight, againſt his putting her into the mew, which will qualify the worm; without this care ſhe will be ſuddenly ſpoiled.

There is another ſort of filander, which lies in the gut or pannel, being long, ſmall, white and red worms—for cure take aloes hepatic, filings of iron, nutmeg, and as much honey as will ſerve to make them into a pill, which give her in the morning as ſoon as ſhe has caſt; and after ſhe has muted it clean away, then give her good hot meat. *See* WORMS.

BADGER, of this animal there are two kinds; the dog badger, ſo called, on accouut of reſembling a dog in his feet; and a hog badger, as reſembling a hog in his cloven feet.

The latter are different from the former, being whiter and larger, and having thicker heads and ſnouts; they do alſo differ in their food, the one eating fleſh and carrion like a dog; and the other roots and fruits like a hog: and theſe kinds of badgers, where they have earths, uſe to caſt their fiants, or dung, in a ſmall hole, and cover it; whereas the dog badgers make their fiants at a good diſtance from their burrows, which are deep, with a variety of chambers, holes, and angles.

The hog badger, being fat and lazy, earths in open, eaſy, and light grounds, whereas the other ſort frequent thickets, rocks, and mountainous places, making their retreats deeper and narrower.

A badger is known by ſeveral other names, as a grey, a brock, a boreſon, or a bauſon: the young are called pigs, the male is called the boar, and the female the ſow.

The badger is naturally a very ſleepy creature, and ſeldom ſtirs out but in the night ſeaſon to ſeek his prey; and above all other food, hog's fleſh is moſt grateful to his palate; inſomuch, that if you take a piece of pork, and trail it over the badger's burrow, he will ſoon make his approach out.

They live to a great age, and when their ſight fails them by reaſon of old age, they keep to their burrows, and receive their food from the younger.

They are of a very chilly and cold nature, and therefore will not go out when it ſnows. Their fleſh is of a ſweet rankiſh taſte, but is eaten in many countries.

The beſt ſeaſon to take them is in *September.*

They have very ſharp and venomous teeth; their legs are longer on the right ſide than on the left, ſo that when they run, they chuſe the ſide of an hill, bank, furrow, or cart-rut.

The dog-badger's ears, ſnout, and throat are yelloviſh, and they are longer legged than the hog-badger: they accompany not together, yet they both prey on

all

all manner of fowl, young pigs, and the like food; doing great hurt in warrens.

They are ſtout and hardy in defending themſelves, and will endure ſevere blows; yet their noſe and ſnout is ſo tender, that a little blow thereon will kill them.

Although the badger and the fox are much alike in ſeveral qualities, yet they often fight with one another, eſpecially on the account of food, ſo that it is good ſport to ſee the conteſt between them.

The hunting and purſuing them, however, is much the ſame at the concluſion: but the badger runs to his earth or burrow, much ſooner than the fox, and being earthed, makes good and defends his caſtle much longer; and to ſay the truth, the pleaſure of the chaſe does chiefly conſiſt in the unkennelling and unearthing of them, which requires ſkill and labour.

You are to take notice, that although all hounds will eagerly purſue, and hunt both the fox and the badger, yet there is not one of them that will endure to feed on their fleſh; and there are ſome dogs more proper for this chaſe than others; thoſe are the terriers, ſpoken of in fox-hunting, which ſee.

The labour and ingenuity of badgers in making their burrows, is worth obſervation. When they earth, after they have entered a good depth, for the clearing the earth out, one lieth on his back, and another layeth earth on his belly; and ſo taking his hinder feet in his mouth, draweth him out of his burrow: and he having unladen himſelf of earth goeth to the ſame work again, and thus they do till their chambers, or places of retreat are finiſhed.

Then they proceed to gather in their furniture, that is, the materials for their couch or lodging, as ſtraw, leaves, moſs, and the like, which with their feet and head they wrap up ſo cloſe together, that they will get to their burrows a pretty good bundle. Some burrows have ſeven or eight diſtinct chambers.

Of hunting the BADGER.

In doing this, you muſt ſeek the earths and burrows where he lies, and in a clear moonſhine night go and ſtop all the burrows, except one or two, and therein place ſome ſacks, faſtened with drawing ſtrings, which may ſhut him in as ſoon as he ſtraineth the bag.

Some uſe no more than to ſet a hoop in the mouth of the ſack, and as ſoon as the badger is in the ſack and ſtraineth it, the ſack ſlippeth off the hoop and ſecures him in it, where he lies trembling till he is taken.

Theſe ſacks or bags being thus ſet, caſt off the hounds, beating about all the woods, coppices, hedges, and tufts, round about, for the compaſs of a mile or two, and what badgers are abroad, being alarmed by the hounds, will ſoon betake themſelves to their burrows; and obſerve that he who is placed to watch the ſacks, muſt ſtand cloſe and upon a clear wind; otherwiſe the badger will diſcover him, and will immediately fly ſome other way into his burrow.

But if the hounds can encounter him before he can take his ſanctuary, he will then ſtand at a bay like a boar, and make good ſport, vigorouſly biting and clawing the dogs. The general manner of their fighting, is lying on their backs, uſing both teeth and nails, and by blowing up their ſkins defend themſelves againſt all bites of the dogs, and blows of the men upon their noſes, as aforeſaid. And for the better preſervation of the dogs, it is good to put broad collars made of greys ſkins.

When the badger perceives the terriers to begin to yearn him in his burrow, he will ſtop the hole betwixt him and the terriers, and if they ſtill continue baying, he will remove his couch into another chamber, or part of the burrow, and ſo from one to another, barricading the way before them, as he retreats, until he can go no further.

If you intend to dig the badger out of the burrow, you muſt be provided with the ſame tools as for digging out a fox; and beſides you ſhould have a pail of water to refreſh the terriers, when they come out of the earth to take breath and cool themſelves.

It will alſo be neceſſary to put ſome ſmall bells about the necks of your terriers, which making a noiſe may cauſe the badger to bolt out.

The tools uſed for the digging out of the badger, being troubleſome to be carried on men's backs, may be brought in a cart.

In digging you muſt conſider the ſituation of the ground, by which you may judge where the chief angles are; for elſe, inſtead of advancing the work, you will hinder it.

In this order you may beſiege them in their holds, or caſtles, and may break their platforms, parapets, caſemates, and work to them with mines and countermines, until you have overcome them.

There are advantages which accrue by killing this animal. Their fleſh, blood, and greaſe, though they are not good food, yet are very uſeful for phyſicians, and apothecaries, for oils, ointments, ſalves, and powders for ſhortneſs of breath, the cough of the lungs, for the ſtone, ſprained ſinews, colt aches, &c. and the ſkin being well dreſſed, is very warm and good for antient people, who are troubled with paralytic diſtempers.

BAG, IN ANGLING. A line is ſaid to bag, when one hair, (after it is twiſted) runs up more than any of the reſt.

BAG, IN FARRIERY, is when, in order to retrieve a horſe's loſt appetite, they put an ounce of aſſafœtida, and as much powder of ſavin, into a bag, to be tied to the bitt, keeping him bridled for two hours, ſeveral times a day: as ſoon as the bag is taken off, he will fall to eating. The ſame bag will ſerve a long time.

BAIT; a thing prepared to take, or bring fiſhes to. *See* ALLURING FISH.

There are three ſorts of baits for taking fiſh: the natural ones, and thoſe generally are living, as worms of all kinds, eſpecially the red maggots, bobs, frogs, graſshoppers, bees, beetles, dores, butterflies, which are admirable for the chub, waſps, hornets, ſnails, ſmall fiſh, &c.

Next are the artificial baits, which are of two ſorts: firſt ſuch as imitate the living baits, eſpecially flies for every month and ſeaſon of the year; nay, almoſt

almoſt for every fiſh, ſo great is the variety of them, that frequent the meadows and rivers.

Theſe flies are made on the bodies of your hooks, the bodies of your flies being made of wool, and the wings of ſeveral ſorts of feathers, coloured to the life, reſembling thoſe you counterfeit, and with theſe draw your hook gently on the top of the water, and generally againſt the ſtream, and the fiſh will bite at them with greedineſs. *See* FLY-FISHING, ANGLING, &c.

The ſecond ſort of artificial baits, are paſtes of ſeveral compoſitions, of which more in Article PASTE: but for the preſent, we are to obſerve, concerning the red, or earth worm, (for the taking of which, conſult that article) it is good for ſmall fiſh all the year round, and ſmall fiſh are good baits for pikes at all times: ſheeps blood and cheeſe are good bait in *April;* the bobs, dried waſps, and bees, are for *May;* brown flies for *June:* maggots, hornets, waſps, and bees for *July*; ſnails in *Auguſt;* graſhoppers in *September;* corn, bramble berries, and ſeeds, at the fall of the leaf; your artificial paſtes are for *May*, *June*, and *July;* and frogs for *March*.

Concerning all your artificial flies, the great dun fly will do the latter end of *February*, if there be fair weather, for it is a time the air is warm, and that the fiſh begin to partake of the ſun's heat, ſo that in reaſon you may expect they will bite freely.

The little dun fly is proper for *March;* the ſtone, or *May* fly, for *April:* the yellow for *May*; the black, dark, yellow and mooriſh fly for *June*; the waſp, and ſhell, and the cloudy, or blackiſh fly is for *Auguſt*; but generally fiſh more eagerly riſe at theſe flies at this ſeaſon, when moſt ſorts of flies reſort to the water ſide.

The beſt way to make theſe flies, is to get the living ones of the ſeveral kinds, thereby to imitate nature, both for ſhape, colour, or ſize, for the nearer the better.

Thoſe fiſh which bite the moſt freely at flies are chubs, chevins, trouts, and ſalmon.

To make the great dun fly; let the body be of black wool, and the wings of the dun feather of a drake's tail.

The little dun fly has his body made of dun wool, and his wing of the mail of a partridge. Theſe are for *March*.

The body of the ſtone, or *May* fly, muſt be of black wool, but under his wings and tail muſt be of a pale yellow, with ſome ſilk of that colour, and his wings muſt be of drake's down. This fly is for *April*.

The red or ruddy fly, muſt have his body made of reddiſh wool of the mail of a mallard, and the red feathers of a capon's tail. This fly is for *May*.

The yellow, or greeniſh fly, muſt have his body made of black wool, with a yellow liſt on each ſide, and the wings of a red cock's mail.

The mooriſh fly has his body made of duſkiſh wool, and the wings of the blackiſh mail of a drake.

The tawny fly muſt be made of a tawny wool, the wings made contrary one againſt the other, of the whitiſh mail of a white drake. Theſe flies are for *June*.

The waſp fly is made of black wool, capped about with yellow ſilk, and the wings of a buzzard's down, or of a drake's feather. This fly is for *July*.

The ſhell fly, termed alſo the green fly, has the body made of greeniſh wool, and his wing of the herle of a peacock's tail. This is alſo for *July*.

The cloudy dark fly muſt be made after a different manner, formed on a ſmall piece of cork, bound about with black wool and black ſilk, and wings of the under mail of a mallard, with a black head.

When you draw it on your hook, be ſure to do it ſo that no part of the hook be diſcerned. This fly is for *Auguſt*.

The rougher the bodies of the flies are, and the more ſhining, the better they are eſteemed; and when you have got a ſet of good flies, they will ſerve you many years, if kept carefully.

Take this for a rule, that the brighteſt flies are for cloudy and dark weather, and the dark flies are for bright and clear weather.

It may not be improper to lay down ſome directions here, for artificial fly-fiſhing. Firſt, obſerve to have the wind in your back, and in caſting off your line, be ſure the fly fall firſt to the water.

For every ſort of fly have ſeveral of the ſame differing in colour, to ſuit the ſeveral waters and weathers.

In ſlow rivers, or ſtill places, caſt your line as far as you can, and let it ſink a little, then gently draw it back, and let the fly float leiſurely with the current: your line ſhould be as long again as your rod, unleſs the river be very ſhallow and clogged up.

You muſt have a nimble hand, and quick eye, to ſtrike preſently upon the riſing of the fiſh, otherwiſe the fiſh will be apt to throw out the hook, finding his miſtake.

As to what concerns live baits, remember they are to be kept each ſort by themſelves, and to be fed with ſuch things as they are wont to eat when at liberty.

The red worm takes much delight in black fat earth; if you mix ſome fennel chopt ſmall with it, they will improve very much.

Give them ſometimes a little ox or cow dung newly made; you may keep them in a box, or ſmall bag.

But red worms, as alſo all other ſorts of worms ſcour quickly, grow very tough and bright by putting them into a thin clout, greaſed with freſh butter, or greaſe, before you put them into moſs, which is the beſt to keep them in; the moſs muſt firſt be waſhed clean, and the water ſqueezed out: and for the food you are to give them, drop a ſpoonful of cream into the moſs every three or four days, and remove the moſs every week, keeping it in a cold place.

White great maggots are to be fed with ſheep's ſuet, and beaſts liver cut ſmall.

Frogs and graſhoppers do well in wet moſs and long graſs, which muſt be moiſtened every night: cut off their legs and wings when you uſe them.

The bob, caddis-worm, cancer, and ſuch like, are to be preſerved with the ſame things where you take them.

Live flies muſt be uſed as you catch them.

The waſp, hornet, and humble bee, may be dried in an oven, after the bread is drawn, but have a care

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in ſcorching them; then dip their heads in ſheep's blood, which muſt be dried on; and ſo keep them in a clean box, and they will continue good for a quarter of a year.

Laſtly, as for compound paſtes, there are ſeveral ſorts; which ſee under Article PASTE; particularly a way of boiling beans, with which you may take great quantity of fiſh.

Take a new pot glazed on the inſide, and boil ſome beans in it, ſuppoſe a quarter of a peck, with river water, after you have ſteeped them for ſeven or eight hours in ſome water that was almoſt warm; when they are nearly half boiled, put in three or four ounces of honey, according to the beans, and two or three grains of muſk; let them boil a little, and uſe them in this manner:

Seek out a clean place, where there are no weeds, that the fiſh may ſee and take the beans at the bottom of the water. The place ſhould be two or three hundred paces from their holes; according to the bigneſs thereof; throw in your beans at five or ſix o'clock in the morning and evening, for the ſpace of ſeven or eight days, to the end you may draw the fiſh thither; and three days before that on which you deſign to fiſh, bait them with the beans before ordered, except that before you take them off the fire, you mix with them ſome of the beſt aloes reduced into powder, about the quantity of two beans; give it a boil, and then take it off.

The fiſh that eat it, will void all they have in their bodies, and for three days after will faſt, and then will come to ſeek for food, in the place where they found the bait, therefore you muſt be ready at two or three in the afternoon to ſpread your nets; and when you have done ſo, and thrown in eight or ten handfuls of beans, withdraw in order to return thither again pretty late in the evening for caſting the net. *See* ALLURE FISH TO BAIT, ANGLING, *and* LEDGER BAIT.

To BAIT, or BATE, (in FALCONRY) is when a hawk flutters with her wings, either from perch, or fiſt, as if it were ſtriving to get away.

BAITS *for intoxicating* FOWL.

There are ſeveral artificial baits for intoxicating of fowl, without tainting or hurting their fleſh, ſome of which are compoſed as followeth:

Take a peck, or leſſer quantity, of wheat, rye, barley, peas, or tares, to which put two or three handfuls of nux vomica, and boil them in running water until they are almoſt ready to burſt, then take it off the fire, and when they are cold ſtrew them upon the land, where you deſign to take the fowl, and ſuch as eat thereof will immediately be intoxicated, and lie as if dead, ſo that you may take them up at pleaſure, provided you ſtay not too long, for the dizzineſs will not laſt long upon them, therefore be near at hand.

As the greater ſort of land fowl are thus taken, ſo may you take ſmall birds, only with this alteration, that inſtead of wheat, peas, or the like grain, you uſe hemp-ſeed, rape-ſeed, or canary-ſeed, but above all, muſtard-ſeed.

If you approve not of nux vomica, you may boil the ſaid grains or ſeeds in the lees of wine, (the ſtronger the better) as you did in the running water, and apply them to uſe as aforeſaid, and it will work the ſame effect, being eſteemed more wholeſome, having nothing of that poiſonous nature in it; but in an hour or two the fumes will be perfectly wrought off.

Inſtead of boiling the ſaid grains or ſeeds in the lees, you may ſteep them therein; but then they will require a long time before they are ſufficiently ſwoln and fit for uſe.

Or inſtead of nux vomica, or lees of wine, you may infuſe the ſaid grains, or ſeeds, in the juice of hemlock, mix therein the ſeeds of henbane and poppy, or either of them. Theſe muſt ſtand two or three days infuſing, before they are fit to ſtrew on the ground for uſe.

Having ſhewed you how to take land fowl, I ſhall give ſome inſtructions for the taking of water fowl, eſpecially at ſuch times as they range up and down to ſeek their food on land; for effecting of which,

Take the ſeeds, leaves, and roots of the herb called bellenge, and having cleanſed them from all filth, put them into a veſſel of clean running water, and let them lie ſteeping therein twenty-four hours at leaſt; then boil them in the ſaid water until it is almoſt conſumed; take it off the fire, let it cool; then ſcatter it in ſuch places where the fowls have their haunts; they will greedily eat it ſo that they will become immediately intoxicated, and lie in a ſtupor as if dead; but you muſt watch them, for the fumes will ſoon wear off.

Some add to this decoction, the powder of brimſtone boiled therein, which is very effectual.

For deſtroying of crows, ravens, kites, and ſuch like miſchievous birds that are injurious to warrens and parks for the killing coneys and lambs, as alſo chickens; take the garbage or entrails of any fowl, or for want thereof, of a pig or rabbet; this garbage ſteep in the lees of wine with nux vomica, and when it is well infuſed therein, put in ſuch places where theſe birds uſe to reſort, which muſt be very early in the morning, or in the evening; and having a place prepared to lie concealed in near at hand, you may take thoſe that are intoxicated by the eating.

Or inſtead of the garbage, you may take little pieces of fleſh, and thruſt therein a ſmall piece of nux vomica, cloſing the place that it may not be diſcerned, and ſcatter the ſaid pieces up and down where their haunts are, and it will have the ſame effect.

Having ſhewed how to take fowl and birds by intoxicating baits, I will give you a receipt how to cover them, that they may be made tame.

Take a ſmall quantity of ſallad oil, more or leſs, according to the bigneſs of the fowl or bird, and drop it down its throat; then chafe its head with a little ſtrong white wine vinegar, and it will ſoon be perfectly well.

BALLS, in FARRIERY, are medicines compoſed of various ingredients, and adminiſtered for the relief of the ſeveral diſorders to which they are reſpectively adapted. The following are the moſt eſteemed receipts.

ALTERATIVE. Antimony finely levigated, ſulphur, nitre, and Æthiop's mineral, each three ounces; Caſtile

ſoap,

ſoap, ten ounces; oil of juniper, three drachms; and ſyrup of honey, ſufficient to make the maſs, which divide into a dozen balls, rolling them in liquorice, or anniſeed powder.

Æthiop's mineral, four ounces; milk of brimſtone, prepared antimony, cream of tartar, and cinnabar of antimony, each five ounces; form theſe into a maſs with honey, and divide and roll them as before.

Mercurial Alterative. Prepared ſteel, ſulphur, and anniſeed powder, each three ounces; of levigated antimony, four ounces; Æthiop's mineral, ſix ounces; and a ſufficient quantity of honey. Divide the whole into nine balls.

Cordial Carminative. Mithridate, half an ounce; anniſeed powder, one ounce; grain of paradiſe and ginger, both in powder, of each, two drachms; oil of juniper and anniſeed, each a drachm; and ſyrup ſufficient to make the ball.

Of ſaffron and London philonium, each two drachms; mithridate and anniſeed in powder, each half an ounce; oil of anniſeed, one drachm; and ſyrup, if required, to make the ball.

Theſe balls are given with ſucceſs in cholicy diſorders.

Chewing. Aſſa fœtida, liver of antimony, juniper, bay-wood, and pellitory of Spain, beaten and incorporated into a maſs with verjuice. The method of adminiſtration is to wrap one of the balls in a linen cloth, and, having a ſtring faſtened to it, make the horſe chew it two or three hours at a time.

Theſe are chiefly uſed for a loſt appetite, a caſe very incidental to horſes.

Diuretic. Of yellow roſin and nitre, powdered, each four ounces; camphire in powder, half an ounce; oil of juniper, three drachms; and Caſtile or the beſt Briſtol ſoap, ſix ounces: mix it with a neceſſary quantity of ſyrup or honey, and roll it up as before. This quantity will make five balls.

Caſtile ſoap and Locatelli's balſam, each three ounces; powder of nitre and anniſeed, each two ounces; and balſam of Peru, ſix drachms; mix it together with the ſyrup of marſhmallows, and divide it into ſix balls.

One ounce of Venice turpentine, two drachms of unrectified oil of amber, the yolk of an egg, one ounce of nitre, half an ounce of juniper-berries, half an ounce of anniſeed, powdered, and a ſufficient quantity of ſyrup of marſhmallows.

Two drachms of the compound powder of gum-tragacanth, ten grains of opium, two drachms of nitre, half an ounce of Caſtile ſoap, two drachms of roſin, and thirty drops of the oil of juniper.

Theſe are very efficacious in caſes of the ſtranguary and greaſe.

Cordial Diuretic. Powder of camphire and ginger, each one ounce; nitre and roſin, each ſix ounces; anniſeed in powder, four ounces; Caſtile or pure white ſoap, ten ounces; oil of juniper, ſix drachms; and honey ſufficient to form the maſs. Divide it into balls of two ounces each.

This medicine is ſingularly adapted to every purpoſe in the cure of the molten greaſe.

Fever. Snake-root, in powder, two drachms; mithridate, ſix drachms; anniſeed and compound contrayerva powders, each half an ounce; ſalt of hartſhorn, one drachm, and a proper quantity of ſyrup of ſaffron.

Venice treacle, ſix drachms; ſnake-root, ſaffron, London philonium, and compound powder of contrayerva, each two drachms; ſyrup, if neceſſary, to make the ball.

Theſe are adminiſtered with advantage in all feveriſh diſorders.

Jaundice. Turmeric, in powder, ſix ounces; Caſtile ſoap, eight ounces; ſoluble tartar, three ounces; India rhubarb, two ounces; long pepper, one ounce; ſaffron, half an ounce; and a ſufficient quantity of honey or ſyrup. Divide the whole into ten balls.

Caſtile ſoap, eight ounces; turmeric and filings of iron, each four ounces; anniſeed and elecampane, each two ounces; vitriolated tartar, one ounce and a half; oil of anniſeed, three drachms; and honey to form the maſs. This will make twelve balls.

Prepared antimony, cream of tartar, ſulphur, and Æthiop's mineral, of each three ounces; mix theſe well together in a mortar, and divide into twelve parts, giving one with the feed of corn, every other morning, ſprinkling the corn with water to prevent its waſte in the manger.

The jaundice is, by a proper application of theſe medicines, effectually cured.

Pectoral Cordial. Turkey figs, Spaniſh liquorice, anniſeed, and liquorice-powders, each four ounces; carraway ſeeds, elecampane, and aniſated balſam, each two ounces; ſaffron, powdered ginger, and oil of anniſeed, each ſix drachms; honey ſufficient to form the maſs. Divide it into twelve balls.

N. B. The figs and ſaffron are to be beaten to a paſte in a mortar, previous to their incorporation with the other articles; the Spaniſh liquorice is to be ſoftened over the fire, by boiling it in a ſmall quantity of ſpring water; and then the whole of the ingredients mixed together.

One of theſe, given every morning, is an excellent remedy for a cold.

Pectoral Detergent. Barbadoes tar, ſix ounces; Caſtile ſoap, anniſeed, and liquorice powders, each five ounces; gum-ammoniacum, three ounces; balſam of Tolu, one ounce; and honey, if required, to make a maſs; which divide into a dozen balls.

Purging. Grated ginger, one drachm; oil of cloves, thirty drops; ſuccotrine aloes, ten drachms; jalap and ſalt of tartar, each two drachms; and ſyrup of buckthorn to form the paſte.

A drachm and a half of Caſtile ſoap and jalap; ten drachms of Barbadoes aloes; diagrydium and ginger in powder, each one drachm; ſalt of tartar, half a drachm; and ſyrup of buckthorn ſufficient to make a ball.

Jalap, one drachm; India rhubarb, two drachms and a half; ginger, three ſcruples; cream of tartar, one drachm; ſuccotrine aloes, one ounce; oil of cloves and anniſeed, each twenty drops: and ſyrup of buckthorn ſufficient to form the ball.

Make a ball with ſyrup of roſes or buckthorn, ten drachms of ſuccotrine aloes, and of rhubarb, ginger, and jalap, each a drachm and a half.

Take ginger, one ſcruple and a half; Barbadoes aloes,

one ounce and a half; Caſtile ſoap and jalap, two drachms; form theſe into a ball, with forty drops of anniſeed, twenty drops of cloves, and a ſufficient quantity of buckthorn ſyrup.

RESTRINGENT. Take the powder of prepared chalk and gum-arabic, each half an ounce; ginger grated, one drachm and a half; mithridate, one ounce; and Armenian bole, half an ounce; make theſe into a ball with the ſyrup of diaſcordium.

CORDIAL RESTRINGENT. To the above articles add ſix drachms of diaſcordium, and forty drops of the oil of anniſeed.

ANODYNE RESTRINGENT. Compound powder of gum-dragon and rhubarb, each half an ounce; columbo-root finely powdered, one drachm and a half; powdered ginger, one drachm; opium, fourteen grains; conſerve of orange-peel, ſix drachms; and with ſyrup of diaſcordium form the ball.

STOMACH-RESTORATIVE. Powder of columbo-root and camomile-flowers, of each two drachms; oil of carraways, five-and-twenty drops; Venice treacle, half an ounce; and honey ſufficient to make the ball.

BALOTADES, are the leaps of a horſe between two pillars, or upon a ſtraight line, made with juſtneſs of time, with the aids of the hands, and the calves of the legs; and that in ſuch a manner, that when his fore feet are in the air, he ſhews nothing but the ſhoes of his hinder feet without yerking out.

Thus it is that the air, or manage of balotades differs from caprioles; the horſe yerks, or ſtrikes out his hinder legs with all his force, keeping them near and even. Balotades differ likewiſe from croupades in this, that in the former the horſe ſhews his ſhoes when he lifts, or raiſes his croup, but in croupades he draws his hinder feet under him.

BALZANE. *See* WHITEFOOT.

BANDOG, a dog for the houſe, bull, bear, *&c.* which ſhould be choſen with ſuch like properties and qualities, that he has a large and very big body, well ſet, a great head, ſharp fiery eyes, a wide black mouth, flat jaws, with a fang on either ſide, appearing lion-like faced; his teeth even on both his jaws and ſharp, a great breaſt, big legs and feet; ſhort tail; not too curſt nor too gentle of diſpoſition, nor laviſh of his barking; no gadder; and laſtly, that he hath a good ſhrill voice for the terror of thieves. *See* DOG. But for the choice of them when young, *ſee* SHEPHERD'S MASTIFF.

BANGLE EARS, an imperfection in a horſe remedied in the following manner: take his ears, and place them ſo as you would have them ſtand, and then with two little boards, three fingers broad, having two long ſtrings knit to them, bind the ears ſo faſt in the places where they ſtand, that they cannot ſtir; then behind the head at the root of the ear, you will ſee a great deal of empty, wrinkled ſkin, which you muſt pull up with your finger and thumb, and clip away with a ſharp pair of ſciſſars cloſe by the head; then with a needle and ſilk ſtitch the two outſides of the ſkin together, and with green ointment heal up the fore; which done, take away the ſplints that hold up the ears, and in a ſhort time you will find them keep the ſame poſition you placed them in.

BANQUET, is that ſmall part of the branch of the bridle that is under the eye, which being rounded like a ſmall rod, gathers and joins the extremities of the bitt to the branch, and that in ſuch manner, that the banquet is not ſeen, but covered by the cap, or that part of the bitt that is next the branch.

Banquet line, is an imaginary line drawn by the bitt-makers along the banquet in forging a bitt, and prolonged upwards and downwards to adjuſt the deſigned force or weakneſs of the branch, in order to make it ſtiff or eaſy: for the branch will be hard and ſtrong, if the ſevil hole is on the outſide of the banquet line with reſpect to the neck; and the branch will be weak and eaſy if the ſevil hole is on the inſide of the line, taking the center from the neck. *See* BRANCH *and* SHOULDER.

BAITING, is when a hawk flutters with her wings, either from perch or fiſt, as if it were ſtriving to get away.

BANDS OF A SADDLE; are two pieces of flat iron, and three fingers broad, nailed upon the bows of the ſaddle, one on each ſide, contrived to hold the bows in the ſituation that makes the form of the ſaddle.

To put a bow in the band, is to nail down the two ends of each band to each ſide of the bow.

Beſides theſe two great bands, the fore bow has a ſmall one, called the wither-band, and a creſcent to keep up the wither-arch.

The hinder bow has likewiſe a ſmall band to ſtrengthen it.

TO BAR A VEIN, or ſtrike it, is an operation performed by a farrier upon the veins of a horſe's legs, and other parts of his body, with intent to ſtop the courſe, and leſſen the quantity of the malignant humours that prevail there.

When horſes have got traverſe mules, or kibed heels, and rat tails, or arreſt in the hinder legs, the cure is to bar a vein.

In order to bar a vein, the farrier opens the ſkin above it, and after diſengaging it, and tying it above and below, he ſtrikes between the two ligatures.

BARB. A horſe brought from *Barbary:* ſuch horſes are commonly of a ſlender light ſize, and very clean ſhaped, and ſmall legs.

The *Spaniſh* and *Engliſh* horſe, are much better bodied, and have larger legs than the *Barb*.

The *Barb* is little inferior to the *Arabian*, *Spaniſh*, or *Turkiſh* horſe; but he is accounted by our modern breeders too ſlender and lady-like to breed on, and therefore in the north of *England*, they prefer the *Spaniſh* and *Turkiſh* horſe before him.

He is ſo lazy and negligent in his walk, that he will ſtumble on carpet ground. His trot is like that of a cow, his gallop low, and with much eaſe to himſelf. But he is for the moſt part ſinewy and nervous, excellent winded, and good for a courſe, if he be not overweighted.

The mountain-barbs are accounted the beſt, becauſe they are the ſtrongeſt and largeſt: they belong to the *Allarbes*, who value them themſelves, as much as they are prized by any other nation, and therefore they will not part with them to any perſon except to the *Prince of the Band*, who can command them for his own uſe at any time, and at his pleaſure.

But

But as for the other more ordinary ſorts, they are to be met with pretty common in the hands of ſeveral of our nobility and gentry.

BARBARY FALCON, by ſome called the *Tartaret Falcon*, is a bird ſeldom found in any country, and is called a paſſenger, as well as a haggard.

It is ſometimes ſmaller than the tercel-gentle, and plumbed red under the wings, ſtrong armed, with long talons and ſtretchers.

The *Barbary* falcon is adventurouſly bold, and you may fly her with the haggard all *May* and *June*. They are hawks very ſlack in mewing at firſt; but when once they begin, they mew their feathers very faſt.

They are called *Barbary* falcons, becauſe they make their paſſage through that country, and *Tunis*, where they are more frequently taken than at any other place.

BARBED, implies bearded like a fiſh-hook.

BARBEL, is ſo called, on account of the barb or beard, that is under his noſe or chaps, and is a leather-mouthed fiſh; and though he ſeldom breaks his hold when hooked, yet if he proves to be a large one, he often breaks both rod and line. The male is eſteemed much better than the female.

They ſwim together in great ſhoals, and are at their worſt in *April*, at which time they ſpawn, but come ſoon in ſeaſon: the places where they chiefly reſort, are ſuch as are weedy and gravelly riſing grounds, in which this fiſh is ſaid to dig and rout with his noſe, like a ſwine.

In the ſummer he frequents the ſtrongeſt, ſwifteſt currents of the water, as deep bridges, wears, *&c.* and is apt to ſettle himſelf amongſt the piles, hollow places, and moſs or weeds; and will remain there unmoveable; but in the winter he retires into deep waters, and helps the female to make a hole in the ſands to hide her ſpawn in, to hinder its being devoured by other fiſh. This fiſh is of good taſte and ſhape, eſpecially his palate is curiouſly ſhaped: it is a very curious and cunning fiſh, for if his baits be not ſweet, clean, well ſcoured, and kept in ſweet moſs, he will not bite; but well ordered, and curiouſly kept, he will bite with great eagerneſs.

The beſt bait for him is the ſpawn of a ſalmon, trout, or any other fiſh; and if you would have good ſport with him, bait the places where you intend to fiſh with it a night or two before, or with large worms cut in pieces, and the earlier in the morning, or the later in the evening that you fiſh, the better it will be.

Alſo the lob worm is a very good bait: but you muſt be ſure to cover the hook all over with the bait.

Green gentles are alſo a very good bait; and ſo likewiſe are bits of tough cheeſe laid in ſteep for twenty-four hours in clarified honey; with which if you bait the ground, you can hardly miſs taking them, if there be any.

Graves, which are the ſediment of tallow melted for the making of candles, cut into pieces, are an excellent ground bait for barbel, gudgeons, and many other fiſh, if thrown in the night before you angle.

Your rod and line muſt be both long and ſtrong, with a running plummet on the line, and let a little bit of lead be placed a foot or more above the hook, to keep the bullet from falling on it; ſo the worm will be at the bottom where they always bite, and when the fiſh takes the bait, your plummet will lie, and not choak him; and by the bending of the rod you may know when he bites, as alſo with your hand you will feel him make a ſtrong ſnatch, then ſtrike, and you will rarely fail if you play him well and leave him; but in ſhort, if you manage him not dexterouſly he will break your line.

Fiſhing for barbel is at beſt but a dull recreation. They are a ſullen fiſh, and bite but ſlowly. The angler drops in his bait, the bullet at the bottom of the line fixes it to one ſpot of the river. Tired with waiting for a bite, he generally lays down his rod, and exerciſing the patience of a ſetting dog, waits till he ſees the top of his rod move; then begins a ſtruggle between him and the fiſh, which he calls his ſport; and that being over, he lands his prize, freſh baits his hook, and lays in for another.

The beſt time for fiſhing is about nine in the morning, and the propereſt time for it is the latter end of *May*, *June*, *July*, and the beginning of *Auguſt*.

BARBS, or BARBLES, are knots of ſuperfluous fleſh, that grow upon the channels of a horſe's mouth: that is, the interval that ſeparates the bars, and lies under the tongue.

Though it ſeems to be a mere trifle, theſe however will hinder a horſe from drinking as uſual; and if he does not drink freely, he eats the leſs, and languiſhes from day to day, perhaps, without any one's taking notice of it.

They are eaſily ſeen by drawing the tongue aſide. Black cattle are ſubject to this complaint as well as horſes. The cure is—Take allum and honey, of each one ounce; bay-ſalt, a handful; and the juice of mint, a quarter of a pint: diſſolve theſe in a quart of clear water, and with it waſh the roots of the barbs till they heal.

There are ſome who adviſe burning them off; but, in conſequence of their ſituation, it is neither ſo eaſy to be done, nor ſafe, leſt the tongue-ſtring or ſmall veins be thereby rendered uſeleſs, and conſequently the horſe defective in his feeding. Others approve of cutting them as cloſe as poſſible, and waſhing the wound frequently with a ſpunge dipped in brandy, or ſpirits of wine or ſalt.

BARKING, this fox-hunters call the noiſe made by a fox in the time of clicketting.

BARDELLE, is a ſaddle made in the form of a great ſaddle, but only of cloth ſtuffed with ſtraw, and tied tight down, without either leather, wood, or iron; they are not uſed in *France*, but in *Italy* they trot their colts with ſuch ſaddles, and thoſe who ride them, are called *Cavalcadours*, or *Scozone*.

BARNACLES, horſe twitchers, or brakes; theſe are things which farriers uſe to put upon horſes' noſes, when they will not ſtand quietly to be ſhod, blooded, or dreſſed, if any ſore; ſome call them pinchers, but then they are ſo termed to diſtinguiſh them from the foregoing, ſince theſe have handles, whereas the others are bound to the noſe with a lace or cord. Indeed there is a third ſort, though differing very little from

the firſt. This ſort is held together at the top by a ring incloſing the buttons, firſt having the top buttons held by an iron pin rivetted through them, but the meaneſt ſort of all is that which we call roller barnacles, or wood twitchers, being only two rollers of wood bound together, with the horſe's noſe between them, and for want of better they ſerve inſtead of iron branches.

BARS OF A HORSE'S MOUTH, are the ridge, or higheſt parts of that place of the gum that never bears any teeth, and is ſituated between the grinders, and the tuſhes, on each ſide of the mouth: ſo that that part of the gum which lies under, and at the ſide of the bars, retains the name of gum.

The bars are that part of the mouth upon which the bitt ſhould reſt and have its appui, for though a ſingle cannon bears upon the tongue, the bars are ſo ſenſible, and tender, that they feel the effect of it even through the thickneſs of the tongue.

Theſe bars ſhould be ſharp-ridged, and lean; ſince all the ſubjection a horſe ſuffers, proceeds from thoſe parts; for if they have not theſe qualities, they will be very little or not at all ſenſible, ſo that the horſe can never have a good mouth: for if they be flat, round, and inſenſible, the bitt will not work its effect, and conſequently ſuch a horſe can be no better governed by the bridle than if one took hold of his tail.

A horſe is ſaid to fall foul of the bar, when in the ſtable he entangles his legs upon the partition bar, that is put to ſeparate two horſes, and keep them from falling upon one another.

Barbs and vigorous tickliſh horſes are apt to fall foul of the bar, and when they do they ſtruggle and fling, and wound themſelves in the hocks, and thighs, and the legs, and are in danger of laming themſelves, unleſs you ſpeedily cut the cord that keeps up the end of the bar, and ſo ſuffer that end to fall to the ground.

BAT FOWLING, is a night exerciſe, and takes all ſorts of birds, both great and ſmall, that rooſt not only on the ground, but on ſhrubs, buſhes, hawthorn trees, and the like places, and is therefore proper for woody, rough, and buſhy places.

The depth of winter is the beſt ſeaſon for this ſport, and the darker the night, and the colder the weather, ſo much the better.

As to the manner of bat-fowling, it may be performed either with nets, or without, juſt as you pleaſe.

If it be without nets, and ſuppoſing the company to be twelve or fifteen, one third part of the number ſhould carry poles, to which ſhould be bound at the top little bundles of dry wiſps of hay, or ſtraw, (or inſtead of them, pieces of links, or hurds dipt in pitch, roſin, or the like, that will blaze) another third part are to attend upon thoſe fires with long poles, rough and buſhy at the upper ends, to knock down the birds that fly about the lights: and the other third part muſt have long poles to beat the buſhes, and other places, to cauſe the birds to fly about the lights, which they will do, being as it were amazed, and will not part from them, ſo that they may be knocked down very eaſily; and thus you may find good diverſion for dark nights.

One of the company ſhould alſo carry a candle and lanthorn, that if all the lights ſhould happen to be extinguiſhed, they may be lighted again; but you muſt be ſure to obſerve the greateſt ſilence poſſible, eſpecially till the lights are kindled.

BAT FOWLING, with nets, is performed as follows; let two or three perſons carry lanthorns and lighted candles, extended in one hand (ſuch as are uſed in Low Belling, which ſee) and in the other hand ſmall nets, ſomething like a racket, but leſs, which muſt be fixed at the end of a long pole, to beat down the birds as they ſit at rooſt; they being ſurprized at the great blazing light, will ſit ſtill till they are knocked down.

A croſs-bow is very uſeful in this ſport, to ſhoot them as they ſit.

BATHING A FALCON, is when weaned from her ramaged fooleries, being alſo hired, rewarded, and thoroughly reclaimed, ſhe is offered ſome water to bathe herſelf in, in a baſon where ſhe may ſtand up to her thighs; for doing this you muſt chuſe a temperate clear day. When you have thus hired the hawk, and rewarded her with warm meat, carry her in the morning to ſome bank, and there hold her in the ſun, till ſhe has endued her gorge, taking off her hood that ſhe may prune and pick herſelf: having ſo done, hood her again, ſet her near the baſon, and take off her hood; let her bathe again, as long as ſhe pleaſes; after ſhe has done, take her up, let her pick herſelf as before, and then feed her; but if ſhe does not like to bathe herſelf in the baſon, then ſhew her ſome ſmall river or brook for that purpoſe.

By the uſe of this bathing, ſhe will gain ſtrength and a ſharp appetite, and ſo grow bold; but give her no waſhed meat on thoſe days that ſhe bathes.

BATTLE ROYAL, (in cock-fighting) a fight between three, five, or ſeven cocks, all engaged together, ſo that the cock which ſtands longeſt gets the day. *See* COCKING.

BAWK, IN ANGLING, is a knot in a hair or link of a line, occaſioned often by the twiſting of an eel, and if not rectified in time the line will break in that place.

BAWREL, is a hawk, for largeneſs and ſhape, ſomewhat like a lannier, but hath a longer body and tail; ſhe is generally a faſt goer aforehead, and a good field hawk, and in incloſures will kill a pheaſant, but being a long-winded hawk is unfit for coverts.

To BAY, to bark as a dog does; among huntſmen, deer are ſaid to bay, when after they are hard run they turn head againſt the hounds.

BAY COLOUR. A bay horſe is what we commonly call red, inclining to cheſnut.

This colour varies ſeveral ways: it is a dark bay, or light bay, according as it is more or leſs deep: and we have likewiſe dapple bays.

All bay horſes have black manes, which diſtinguiſhes them from the ſorrel, that have red or white manes.

BAYARD, a bay horſe.

BEAGLES, hunting dogs, of which there are ſeveral ſorts, *viz.* the ſouthern beagle, which is ſomething leſs than the deep mouthed hound, and ſomething thicker and ſhorter.

The

The fleet northern, or cat beagle, which is ſmaller, and of a finer ſhape than the ſouthern beagle, and is a hard runner.

Theſe two beagles by croſſing the ſtrains, breed an excellent ſort, which are great killers.

There is alſo a very ſmall ſort of beagles, not bigger than a lady's lap-dog, which make pretty diverſion in hunting the coney; and alſo the ſmall hare, if the weather be dry; but by reaſon of the ſmallneſs, this ſort is not ſerviceable.

BEAK, the nib, or bill, of a bird; in falconry, the upper part of a hawk's bill that is crooked.

BEAKING (in cock-fighting) the fighting of thoſe birds with their bills, or holding with the bill, and ſtriking with the heels.

BEAM, (in the head of a deer) is that part which bears the antlers, royals, and tops, and the little ſtreaks therein called circles.

BEAM FEATHERS, are the long feathers of a hawk's wing.

Of the Nature and Properties of a BEAR, *and after what Manner hunted.*

There are two ſorts of bears, a greater and a leſſer; the laſt is more apt to climb trees than the other.

Bears are bred in many countries; in the *Helvetian Alpine* region, they are ſo ſtrong and courageous, that they can tear to pieces both oxen and horſes, for which cauſe the inhabitants are ſtudiouſly laborious in the taking them.

A bear is of a moſt venerous and luſtful diſpoſition, for day and night the females with moſt ardent inflaming deſires do provoke the males to copulation, and for this cauſe at that time they are moſt fierce and angry.

The time of their copulation is in the beginning of winter, and the manner of it is like to a man's; the male moveth himſelf upon the belly of the female, which lieth flat on her back, and they embrace one another with their fore feet; they remain a very long time in that act.

They are naturally very cruel and miſchievous unto all tame beaſts, and very ſtrong in all parts of their body but their head, where a ſmall blow will kill them.

They go to mate in the beginning of the winter, ſome ſooner, ſome later, according to their reſt and feeding; and their heat laſteth not more than fifteen days.

When the ſhe-bear perceiveth herſelf with whelp, ſhe withdraws herſelf into ſome cave or hollow rock, and there remains till ſhe brings forth her whelps.

When they enter into their den, they convey themſelves backwards, that ſo they may put out their footſteps from the ſight of the hunters.

The nature of all of them is to avoid cold, and therefore in the winter time they hide themſelves, chuſing rather to ſuffer famine than cold, lying for three or four months together, and never ſee the light; whereby, in a manner, their guts are clung together; and coming forth, are ſo dazzled by long darkneſs, being in the light again, that they ſtagger and reel to and fro: and then by a ſecret inſtinct they remedy the ſtraitneſs of their guts, by eating an herb, called arum; in Engliſh, Wake-robin, or calves-foot; by acidity whereof their guts are enlarged: and being recovered, they remain more fierce and cruel than at other times, while their young are with them.

They are whelped moſt commonly in *March*; ſometimes two, and not above five in number: the moſt part of them are dead one whole day after they are whelped, but the ſhe-bear ſo licks them and warms them with her breath, and hugs them in her boſom, that ſhe quickly revives them.

As ſoon as the dam perceiveth her cubs to grow ſtrong, ſhe ſuckleth them no longer, by reaſon of their curſtneſs; as they will bite her if they cannot get ſuck enough.

After this ſhe preyeth abroad upon any thing ſhe can meet with, which ſhe eats and caſts up to her young ones; and ſo feeds them till they can prey themſelves. They will climb a tree for the fruit.

If they be hunted they will follow a man, but not run at him unleſs they are wounded.

They are very ſtrong in their paws; they will ſo hug a man, or dog, till they have broke his back, or ſqueezed the guts out of his belly: with a ſingle paw they will pull a luſty dog to his tearing and devouring mouth.

They will bite ſo ſeverely, that they will bite a man's head to the brains: as for an arm or leg, they will cruſh it, as a dog does a ſlender bone of mutton.

When they are hunted, they are ſo heavy that they make no ſpeed, and are always in ſight of the dogs: they ſtand not at bay as the boar, but fly wallowing; but if the hounds ſtick in, they will fight valiantly in their own defence; ſometimes they will ſtand up ſtraight on the hinder feet, which you may take as a ſign of fear and cowardice, for they fight ſtouteſt and ſtrongeſt on all four.

They have an excellent ſcent, and will ſmell farther than any other beaſt, except a boar.

They may be hunted with hounds, maſtiffs, or greyhounds; and they are chaſed and killed with bows, boar-ſpears, darts, and ſwords: ſo are they alſo taken in ſnares, caves, pits, and with other engines.

They naturally abide in great mountains; but when it ſnows, or in hard weather, then they deſcend into vallies and foreſts for proviſions.

They caſt their leſſes ſometimes in round croteys, and ſometimes flat, like a bullock, according to their feeding.

They go ſometimes a gallop, and at other times an amble: but they go moſt at eaſe when they wallow.

When they come from their feeding, they beat commonly the highways and beaten paths, and whereſoever they go out of the highways, there you may be ſure they are gone to their dens: for they uſe no doubling nor ſubtilties.

They tumble and wallow in water and mire, as ſwine, and they feed like a dog: ſome ſay their fleſh is very good food.

The beſt way of finding the bear is with a lean hound; and yet he who is without one, may trail after

after a bear as we do after a buck or roe, and you may lodge and hunt them as you do a buck.

For the more ſpeedy execution, mingle maſtiffs among the hounds; for they will pinch the bear, and ſo provoke her to anger, until at laſt they bring her to the bay, or elſe drive her out of the plain into the covert, not letting her be at reſt till ſhe fights in her own defence.

BEARD, IN ANGLING, is that part of the hook which is a little above the point, and projecting out, to hinder the fiſh from ſlipping off the hook.

BEARD, OR UNDER BEARD, OR CHUCK OF A HORSE, is that part underneath the lower mandible on the outſide, and above the chin, which bears the curb of the bridle. It is alſo called the chuck. *See* CURB *and* GENETTE.

BEARD OF A HORSE, ſhould neither be too high raiſed, nor too flat, ſo that the curb may reſt in its right place.

It ſhould have but little fleſh upon it, and be almoſt nothing but ſkin and bone, without any kind of chops, hardneſs or ſwelling.

High BEARING COCK, one larger than the cock he fights with.

BEASTS OF THE CHASE, are five, the buck, the doe, the fox, the roe, and the martin.

BEASTS OF THE FOREST, are the hart, the hind, the hare, the boar, and the wolf.

BEASTS AND FOWLS OF THE WARREN, are the hare, the coney, the pheaſant, and the partridge.

BEARING CLAWS: the foremoſt toes of a cock are ſo called by cock-fighters, which, if they be hurt or gravelled, he cannot fight.

To BEAT, (with Hunters) a term uſed of a ſtag which runs firſt one way and then another, who is then ſaid to beat up and down: alſo the noiſe made by conies in rutting time, which is called beating, or tapping.

BEAT UPON THE HAND. *See* CHACK.

BEAT, to beat the duſt or powder, is ſaid of a horſe that at each time or motion, does not take in ground or way enough with his fore-legs.

A horſe beats the duſt at *terra a terra*, when he does not embrace, or take in ground enough with his ſhoulders, and makes all his times and motions too ſhort, as if he made them in one place.

He beats the duſt at curvets, when he does them too precipitately, and too low.

He beats upon a walk, when he walks too ſhort, and makes but little way, whether in ſtraight lines, rounds, or paſſagings.

BEATING, *among Sportſmen*, is the noiſe made by hares in rutting-time. *See* TERMS.

BEATING *in the Flanks*, a diſtemper to which black-cattle are ſubject, and is an indication of great inflammation in the bowels.

The treatment ſhould be the ſame as in fevers, and the diet cool and relaxing.

BEAVER, this animal differs not much from the otter, excepting his tail, being of colour ſomewhat yellow, interſperſed with aſh. There are great numbers of them in *Virginia*, *New-England*, *New-York*, and thoſe parts: and the river *Tivy* in *Wales*, was once famous for this animal.

They are an amphibious animal like the otter, living both on land and in water; both freſh and ſalt; keeping in the laſt in the day, and on the firſt in the night: but without water they cannot live; for they participate much of the nature of fiſh, which may be gathered from their tails and legs.

They are much about the bigneſs of mungrel curs; their fore-feet are like thoſe of a dog, and their hinder like thoſe of a gooſe, having a web to aſſiſt them in ſwimming: they have a ſhort head, a flat hairy ſnout, ſmall round ears, very long teeth; and the under teeth ſtanding out beyond their lips, about the breadth of three fingers, and the upper about that of half a finger, being very broad, crooked, ſtrong, and ſharp, ſet deep in their mouths; being their only weapon to defend themſelves againſt other animals, and take fiſh, as it were, upon hooks: and with theſe they will ſoon cut aſunder a tree as thick as a man's thigh: the tail is without hair, and covered over with a ſkin like the ſcales of a fiſh, about half a foot long, and ſix fingers broad.

BEAVER-HUNTING.

The common method of hunting them is thus: their caves, or places of abode, being found, in which are ſeveral chambers, or places of retreat, by the water-ſide, built one over another for them to aſcend or deſcend, according as the water riſes or falls; and the building of them is admirable to behold; being made with ſticks, and plaiſtered with dirt, in form of a bee-hive; but for largeneſs, as big as a moderate ſized oven.

Theſe caves being found, you muſt make a breach therein, and put a little dog in it; which when the beaver perceives, he inſtantly makes to the end of his caves, and there defends himſelf with his teeth till all his building is razed or demoliſhed, and he is expoſed to his enemies, who kill him with proper inſtruments. The dogs uſed for killing them are ſuch as for the otter.

The beaver cannot dive long under water, but muſt put up his head for breath; which being ſeen by thoſe that are hunting them, they kill them with gun-ſhot, or ſpears, ſuch as are uſed for killing the otter.

They are taken for their ſkins and cods, which are of a high price: thoſe ſkins are beſt that are blackeſt.

One who dwelt in *Virginia*, gives the following account of them. That they dwell, or inhabit, in low, mooriſh, boggy places, through which runs a rill of water; and this rill, at ſome convenient place, they ſtop by making a dam croſs it; and by this dam (which is made artificially with earth and ſticks) they make their caves; and to which belong commonly two or three hundred beavers, reſembling as it were a town.

If this dam is at any time broken by any to take them, or otherwiſe becomes decayed, (the water being their chief refuge) they immediately repair it.

And by obſervation, they have a chief over them, who takes care thereof; the reſt are very obſervant to him when he has aſſembled them together, which he does

does by flapping his tail in the water, and ſo making a noiſe.

BED, (with Sportſmen) is ſaid when a roe is meant to lodge in any particular place.

BEDDING, in reſpect of horſes and other cattle, denotes ſtraw or litter ſpread under them to lie on.

BED AND BEDDING, IN ANGLING, are ſaid of hairs where they are twiſted kindly, ſo that the link is equally round in every part. Alſo the ſubſtance of the body of an artificial fly. Eels are ſaid to bed, when they get into the ſands or mud in large quantities.

BED OF SNAKES; a name hunters give to a knot of young ones; and a roe is ſaid to bed when ſhe lodges in a particular place.

BEE. It is obſerved generally after mild winters, that bees are very prolifick, and that the ſwarms are in general large. Of all the ſubjects that occupy the rural œconomiſt, there are none ſo profitable as the bee, or that pay ſo large intereſt; for if you give the ſwarm a hive, which coſt ſix-pence, and two-pennyworth of honey to attach them to it, it is more than probable, that in the ſpace of three months, that hive may be worth from five to fifteen ſhillings.

The bee ſeems much neglected in this country, for while in many parts of England cottagers will take from ſix to eighteen or twenty-four hives in a year, and leave as many for ſtore; here it is rare to ſee a cottager poſſeſſed of five hives at once.

It is aſſerted of ſome perſons fond and ſucceſsful in the care of bees, that if we univerſally carried that point to the high degree of produce we might, we ſhould need little importation of ſugar; and that one-fourth of the candles we burn might be made of wax. It is ſaid, that in many provinces of France, individuals poſſeſs from twenty to one hundred hives, and ſome from four to five hundred.

BELLING, } (with hunters) the noiſe made by
BELLOWING, } a hart in rutting-time.

BELLY; a thick-bellied, a well-bodied, a well thick-flanked horſe; that is, a horſe that has large, long, and well made ribs; or ſuch as are neither too narrow nor too flat: thence they ſay,

Such a horſe has no body, he is thin-flanked; that is, his ribs are too narrow, or ſhort, and the flank turns up: which makes his body look flankleſs, like a greyhound.

A horſe of this nature is commonly called in *French* an *eſtrac;* which generally ſpeaking, is a fine ſort of tender horſes, not very fit for travelling or fatigue, unleſs they feed very heartily.

We reject all coach-horſes that are not well-bodied, all that are narrow or thin gutted, and ſeem to have the hide or ſkin of their flanks ſtitched upon their ribs; but a hunter is not the worſe liked for being light bellied: nay, on the contrary, he is preferred to a thicker flanked horſe, provided he is well winded, of good mettle, light, and a great eater.

BELLY-FRETTING, } is a grievous pain in the
BELLY-ACHE, } belly of an horſe, beſides the cholic, proceeding either from eating of green pulſe, which grows on the ground, or raw, undried peas, beans, or oats; or elſe when ſharp fretting humours, inflammations, or abundance of groſs matter, is got between the great gut and the panicle: the ſigns of which pain, is much wallowing, great groaning, *&c.*

The cure is to rake the horſe, by firſt anointing your hand with ſallad oil, and thruſting it into his fundament, and pulling out as much dung as can be reached; and afterwards to give him a glifter of water and ſalt mixed together; and then give him to drink the powder of wormwood and centaury, brewed in a quart of malmſey.

BELLY-ACHE IN SWINE; to cure this diſorder, give, in the morning, the following doſe.

To one ounce of long-pepper and a handful of fennel-ſeed, add one ounce of fenugreek-roots and two ounces of honey; boil theſe in a pint of white wine and a quart of ſtale beer. Or,

Take mayweed a handful, ground ginger an ounce, anniſeed and fennel-ſeed an equal quantity, and of treacle an ounce; boil the whole in a quart of beer.

BELT, a frequent diſeaſe in ſheep. To remedy it, cut away the tags, and open the ſore, caſt fine ſifted mould on it, and cover that with a plaiſter of tar, oil of turpentine, and gooſe greaſe.

BEVY, OF ROE-BUCKS, (with Foreſters) a herd or company of thoſe beaſts.

BEVY, OF QUAILS, (with Fowlers) is a term uſed for a brood, or flock of young quails.

BEWITS, (in Falconry) pieces of leather, to which a hawk's bells are faſtened, and buttoned to his legs.

BEZANTLER, (among Sportſmen) that branch of a deer's horn next below the brow-antler.

BILLITTING, (among Hunters) the ordure, or dung of a fox.

BINDING, (in Falconry) a term uſed in tiring; or when a hawk ſeizes his prey.

BIRD. Birds are either land-fowl or water-fowl. Thoſe that are brought up in cages, require that ſome care ſhould be taken of them when they happen to be hurt, or fall ſick; for which the following remedies may be uſed, as there is occaſion.

For thoſe that are hurt, gently pull off the feathers from the place, or you may cut the moſſ; and ſpreading a villa magna plaiſter upon ſoft leather, apply it thereto.

To bring birds to an appetite, take rhubarb, agaric, aloes, ſaffron, cinnamon, anniſe, and ſugar-candy, of each a dram; beat all theſe ingredients together, and reduce them into a powder; and give them as much of this powder as will lie upon a ſilver penny, in a pellet, at night: and this will make them caſt much.

To purge birds, and bring them to a ſtomach, give them two pills of the old liquid conſerve of province roſes, of about the bigneſs of a ſmall pea.

We proceed next to the ways how to take birds that are at large: there is a way of intoxicating, and catching them with your hands; in order to which, take ſome lees of wine, and hemlock juice, and having tempered them together, let ſome wheat, for the ſpace of one night, be ſteeped therein; then throwing the ſame into a place where the birds reſort to feed, when they have eaten thereof, they will drop down.

There are various ways of taking birds; one of which

which is in the night, with a low-bell, hand-net, and light; a ſport uſed in plain, and champaign countries; alſo in ſtubble fields, eſpecially that of wheat, from the middle of *October* to the end of *March*; and that after this manner.

At night, when the air is mild, and the moon does not ſhine, take your low-bell, which muſt be of a deep and hollow ſound, of ſuch a reaſonable ſize that a man may carry it conveniently with one hand; and which does toll juſt as a ſheep's while it feeds: you muſt alſo have a box, much like a large lanthorn, and about a foot and a half ſquare, big enough for two or three great lights to be ſet in it; and let the box be lined with tin, and one ſide be open, to caſt forth the light, fix this box to your breaſt to carry before you, and the light will carry a great diſtance before you, very broad, whereby you may ſee any thing that is on the ground, within the compaſs of the light, and conſequently the birds that rooſt on the ground.

As for the taking them, have two men with you, one on each ſide; but a little after you, to the end they may not be within the reflection of the light that the lanthorn or box caſts forth; and each of them muſt be provided with a hand net of about three or four feet ſquare, which muſt be fixt to a long ſtick, to carry in their hands; ſo that when either of them ſees any bird on his ſide, he may lay his net over them, and ſo take them up, making as little noiſe as poſſible; and they muſt not be over haſty in running to take them up; but let him that carries the light and low-bell, be the foremoſt, for fear of raiſing others, which their coming into the limits of the light may occaſion; for all is dark, except where the light caſts its reflection.

It is to be obſerved, that the ſound of the low-bell cauſes the birds to lie cloſe and not dare to ſtir, while you put your nets over them: and the light is ſo terrible to them, that it amazes them; and for caution you muſt uſe all imaginable ſilence, for fear of raiſing them.

If you would practiſe this ſport by yourſelf, then carry the low-bell in one hand, as before directed, and in the other a hand-net, about two feet broad, and three feet long, with an handle to it: which is to lay upon them as you ſpy them. Some like this way better than the former.

If you take a companion, you may have a fowling-piece, to the end that if you eſpy a hare, the better way is to ſhoot it: for it is hazardous to take it with a net.

Some there are, who inſtead of fixing the light to their breaſt as aforeſaid, tie the low-bell to their girdle, by a ſtring which hangs to their knees, and their motions cauſe the bell to ſtrike; and then they carry the light in their hand, extending the arm before them; but the lanthorn, or box, muſt not be ſo large as that which you fix to your breaſt.

Another way of taking ſmall birds, is by bat-fowling, the ſame being likewiſe a night exerciſe; by which you may take all ſorts of birds, both great and ſmall, that rooſt not only on the ground, but on ſhrubs, buſhes, hawthorn trees, and the like places.

The depth of winter is the beſt ſeaſon for this ſport; and the darker the night, and the colder the weather, ſo much the better. *See* BAT-FOWLING.

Some take great and ſmall fowl by night in champaign countries, with a long tramel-night, which is much like the net uſed for the low-bell, both for ſhape, bigneſs, and meſh: for which ſee Plate XVI. This net is to be ſpread upon the ground, and let the nether or further end thereof, being plumbed with ſeveral plummets of lead, lie cloſe on the ground; and then bearing up the former end by the ſtrength of men, at the two foremoſt ends only, trail it along the ground; not ſuffering the end which is borne up to come near it, by at leaſt a yard.

Then at each end of the net muſt be carried great blazing lights of fire, ſuch as have been ſpoken of before; and by the lights men muſt, with long poles, raiſe up the birds as they go, and as they riſe under the nets, to take them: and you may in this manner go over a whole corn-field or other champaign ground, which will yield both pleaſure and profit.

There are, and may be, more ways than one for taking ſmall birds, when the ground is covered with ſnow; to inſtance in the following one; ſee Plate II. Fig. 2. pitch upon a place in your yard or garden, from which you may ſee the birds about twenty or thirty paces from ſome window or door, from whence the birds cannot ſee you, to the end they may not be frightened: clear this place of the ſnow, to the breadth of ſix or ſeven feet, and of the ſame length, ſo as to form a ſquare, as repreſented by the lines O, P, Q, R: place a wooden table, or door in the middle, as at A, to which you muſt have faſtened before at the ſides, B, C, D, E, ſome ſmall pieces of pipe-ſtaves, about ſix inches long, and an inch broad: but before you nail them on, make a hole, exceeding the thickneſs of the nail, to the end it may eaſily turn about each nail.

You are, under the four ends which are not nailed, to place four pieces of tile, or ſlate, to hinder them from penetrating into the ground, as you may ſee at F and G, in ſuch a manner that the table may not be fixed, but with the leaſt jog fall down.

You muſt make a ſmall notch, or little ſtay, in the end of the table, at the place marked H, in order to put into it the end ſtaff marked I, which ſhould be ſeven inches long, and one broad, and the other end ought to reſt upon a piece of tile or ſlate; ſo that the door, or table, hanging thereon, would be ready to fall towards the horſe, were it not for that piece of wood which is bored towards the middle, in order to put in and faſten the end of a ſmall cord, whoſe other end is conveyed to the window or door M, N, deſigned for this purpoſe.

This done, put ſome ſtraw upon the table to cover it, with ſome corn underneath it, and a little about it: now, ſo ſoon as the hungry little birds ſee the earth free from ſnow, and covered with ſtraw, they will fly thither, and when they have eat up the corn about the table, they will alſo proceed to feed upon that under it: you muſt from time to time peep through ſome hole in the door, or leave it a little open, and when you find the birds have got under the machine, pull the cord M, which will draw out the ſtick I, and ſo the table will fall

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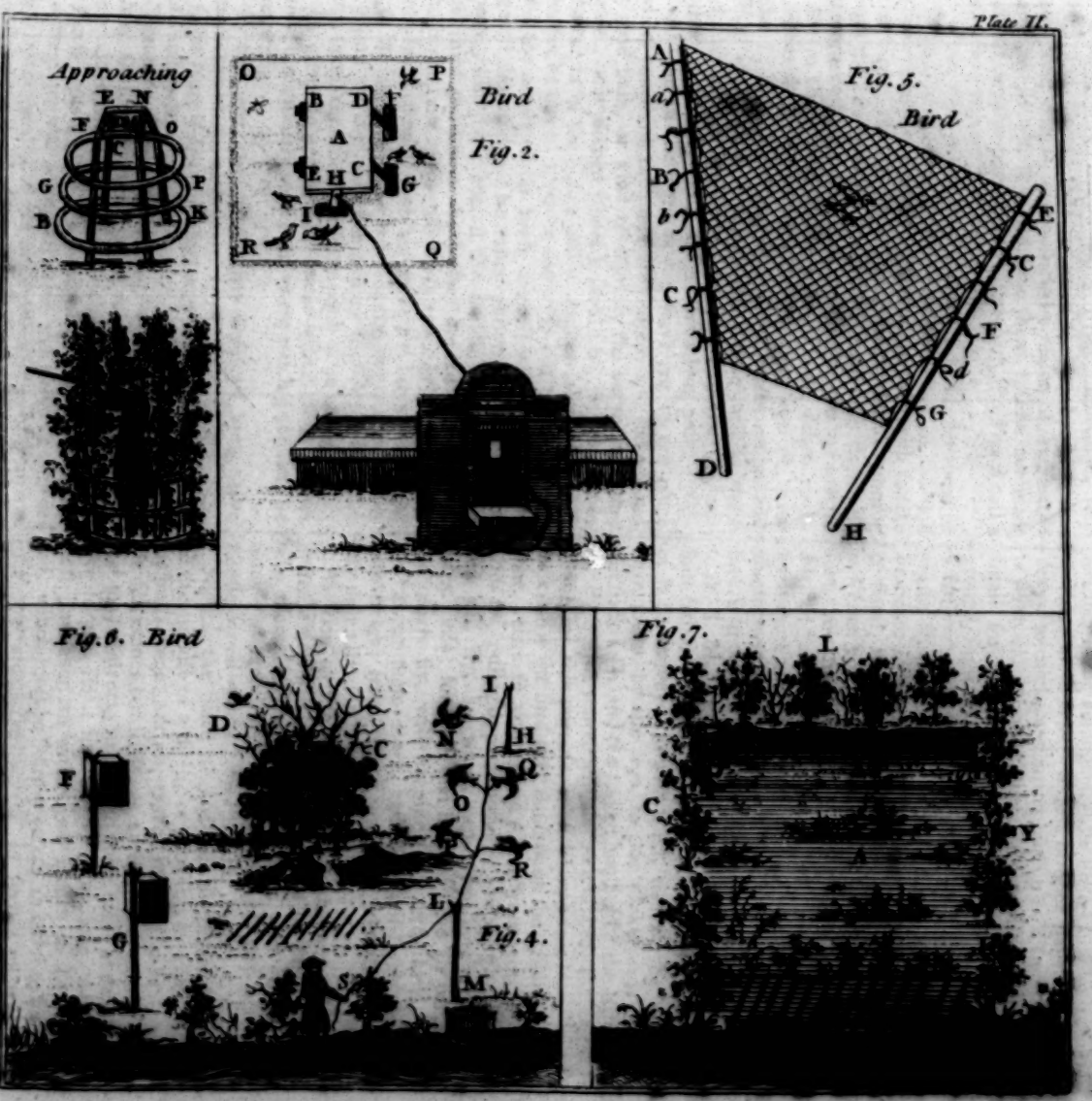
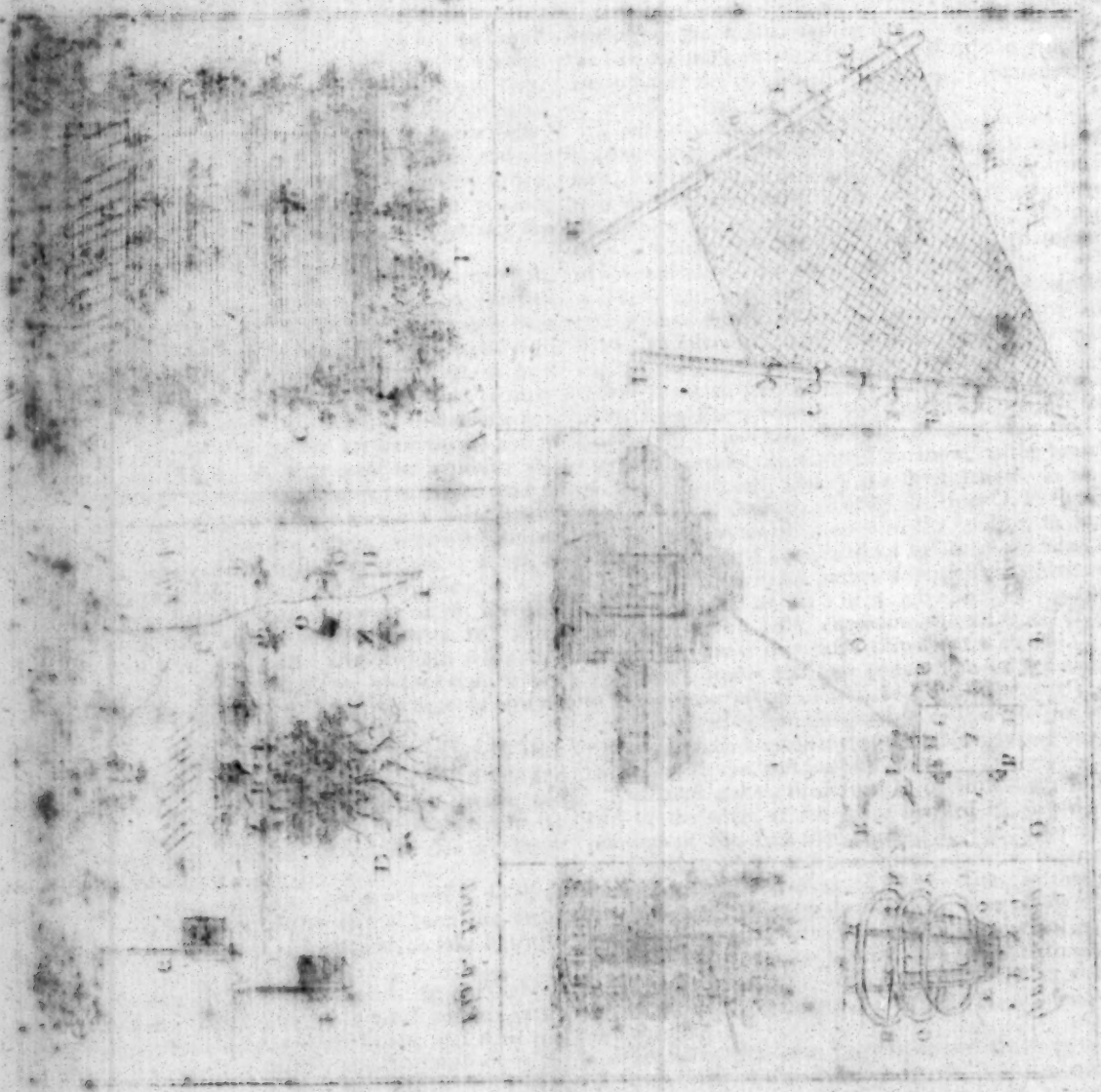




fall upon the birds, which you muſt preſently ſeize, and ſet your machine as before.

If the table does not fall readily enough, but ſo that the birds may have time to eſcape, and if it be not heavy enough of itſelf, you muſt lay earth, or ſome ſuch thing, upon it, that may the leaſt frighten the birds from coming near it.

Small birds may be taken in the night-time, with nets and ſieves: they retire in the winter time into coppices, hedges, and buſhes, by reaſon of ſevere cold and winds which incommode them. The net made uſe of for this purpoſe, is that which the *French* call a carrelet, repreſented in Plate II. Fig. 5.

Take two poles, A B C D, E F G H, let them be ſtraight, and light, ten or twelve feet long; to the end the net may be lifted up high enough wherewith to take the birds: tie the net to theſe two poles, beginning with the two corners, at the two ſmall ends A, E, tie the other two corners, C, G, as far as you can toward the two thick ends of the poles, D, H, faſten packthreads all along at both the ſides, or two or three places; to each you may ſee marked by the capital and ſmall letters, a B, b C, F, d. There muſt be three or four perſons employed, one to carry the net, another to carry the light, and a third a long pole.

As ſoon in the night as you have got to the place where you think the birds are retired, and have found a good buſh, or kind of thicket, the net muſt be unfolded, and pitched where it ſhould be, and exactly to the height of the buſh: and it muſt be ſo ordered, that the net be placed between the wind and the birds; for it is the nature of all birds to rooſt with their breaſts againſt the wind. The other perſon with the lighted torch, muſt ſtand behind the middle of the net, and the third muſt beat the buſhes on the other ſide of the hedge, and drive the birds towards the light, he muſt lay on ſtoutly with his pole; the birds, ſuppoſing it to be day, will make towards the light, and ſo falling into the net, become a prey to you: when you have taken them out, you may pitch your net again.

In great timber woods, under which holly buſhes grow, birds uſually rooſt; and there much game is to be met with.

By this way, twenty or thirty dozen of birds, have been taken in one night.

This ſport is ſo much the better when the weather is cold and dark.

You may divert yourſelf from *September* to *April*, in taking all ſorts of birds in the middle of a field; and make uſe of the following device:

Pitch upon a place in a piece of ground early in the morning, remote from tall trees and hedges; where ſtick in the ground three or four branches of coppice wood, as A, B, T, Plate II. Fig. 6, five or ſix feet high, and ſo intermingle the tops of them, that they may keep cloſe and firm like a hedge: take two or three buſhes of black-thorn, as C, D, let them be as thick and cloſe as may be, and place them on the top of the coppice branches, where you muſt make them faſt: provide yourſelf with four or five dozen of ſmall lime twigs, nine or ten inches long, and as ſlender as can be got: glew them all along, within two inches of the thick end, which muſt be cleft with a knife: place them near, and upon the hedge, and let them be kept up by placing the cleft end ſlightly upon the point of the thorns, and let the middle be borne up a little with ſome other higher thorn, ſo that they may ſtand ſloping, without touching one another; ranging them all in ſuch a manner, that a bird cannot light upon the hedge without being entangled. *See* Plate II. Fig. 6.

You ſhould always have a bird of the ſame ſort you deſign to catch, and bring him up in a ſmall cage that is light and portable: theſe cages muſt be placed upon ſmall forked ſticks, as F, G, ten inches from the ground, ſtuck on one ſide the artificial hedge, or buſh, at a fathom's diſtance; after which retire thirty paces towards S, where you are to ſtick two or three leaved branches in the ground, which may ſerve for a lodge, or ſtand, to hide yourſelf.

When you have taken three or four birds of any ſort, you muſt make uſe of a device repreſented by Fig. 4: take a ſmall ſtick, I, H, two feet long, and fix it quite upright in the ground, at the diſtance of about two fathoms from the tree; faſten a ſmall packthread to the end I, which muſt be on a ſmall forked ſtick, L M, two feet high, and fix it in the ground, four fathoms diſtant from the other, I H: let the end of it be conveyed to your ſtand, then tie the birds you have taken, by the legs, to that packthread, between the ſtick I H, and the forked one L M: the letters N, O, P, Q, R, repreſent them to you: the thread made uſe of for this purpoſe, muſt be two feet long, and ſo ſlack, that the bird may ſtand upon the ground. This done, retire to your ſtand; and when you ſee ſome birds fly, pull your packthread S, and the birds that are tied will fly, by which means you may take a great many birds; for thoſe that hover in the air perceiving the others fly, will imagine they feed there, which will bring them down, and they will light upon the lime twigs; from which you may take them without any difficulty.

As ſoon as the ſmall birds have done with their neſts, which will be about the end of *July*, you may take them in great numbers, when they go to drink along rivulets, about ſprings, ditches, and pools, in the fields and woods. *See* Plate II. Fig. 7.

Suppoſe the place marked with the letter A, ſhould be the middle of a ditch, or pool full of water, where the birds come to drink, make choice of a bank where the ſun comes but little, as at B: remove every thing that may obſtruct the birds to come eaſily at the water; take ſeveral ſmall lime-twigs, a foot long, which you muſt lime over, to within two inches of the thickeſt end, which muſt be ſharp-pointed, in order to fix them in a row along the bank B, in ſuch a manner, that they may all lie within two fingers breadth of the ground: they muſt not touch one another: when you have encloſed this bank, cut ſome ſmall boughs or herbs, all which place round the waters at the ſides marked C, L, Y, where the birds might drink, and this will oblige them to throw themſelves where the lime-twigs are, which they cannot diſcern, and leave no places uncovered round the water, where the birds may drink, but that at B; then retiring to your ſtand

to conceal yourſelf, but ſo as that you may ſee all your lime-twigs, and when any thing is catched, haſten to take it away and replace the lime-ſticks, where there is occaſion. But as the birds which come to drink, conſider the place where they are to alight for it, for they do it not at once, but reſt upon ſome tall trees, if there be any, or on the tops of buſhes, and after they have been there ſome time, get to ſome lower branches, and a little after alight on the ground; in this caſe you muſt have three or four great boughs like thoſe repreſented at the ſide Y, which you are to pitch in the ground at the beſt place of acceſs to the ditch, about a fathom diſtant from the water: take off the branches from the middle, to near the top, and let the diſbranched part be ſloping toward the water, to the end you make notches therein with a knife, at three fingers diſtant from each other, in order to put in ſeveral ſmall lime twigs, as you ſee by the cut; you muſt lay them within two fingers breadth of the branch, and ſo diſpoſe them in reſpect to one another, that no bird which comes to alight thereon can eſcape being entangled: it is certain if you take ſix dozen of birds, as well on the boughs as on the ground, you will catch two-thirds on the branches at Y. *See* Plate II. Fig. 7.

The time for this ſport is from two in the morning till evening, half an hour before ſun-ſet; but the beſt time is from about ten to eleven, and from two to three; and laſtly, an hour and a half before ſun-ſet, when they approach to the watering-place in flocks, becauſe the hour preſſes them to retire to rooſt.

The beſt ſeaſon for this diverſion, is when the weather is hotteſt; you muſt not follow it when it rains, nor even when the morning dew falls, becauſe the birds then ſatisfy themſelves with the water they find on the leaves of trees, neither will it be to any purpoſe to purſue the ſport when the water after great rains lies in ſome places on the ground: it muſt firſt dry up, or elſe you will loſe your labour.

Large, as well as ſmall birds, are taken at ſuch watering-places. *See* LOW-BELL *and* PITFALL.

BIRDLIME, ſtuff prepared after different ways: the common method is to peel a good quantity of holly bark about Midſummer, fill a veſſel with it, put ſpring water to it, boil it till the grey and white bark ariſe from the green, which will require twelve hours boiling; then take it off the fire, drain the water well from it, ſeparate the barks, lay the green bark on the ground in ſome cool cellar, covered with any green rank weeds, ſuch as dock-thiſtles, hemlock, &c. to a good thickneſs; let it lie ſo fourteen days, by which time it will become a perfect mucilage; then pound it well in a ſtone mortar, till it become a tough paſte, and that none of the bark be diſcernible; you then waſh it well in ſome running ſtream, as long as you perceive the leaſt motes in it: then put it into an earthen pot to ferment, ſcum it for four or five days, as often as any thing riſes, and when no more comes, change it into a freſh earthen veſſel, and preſerve it for uſe in this manner. Take what quantity you think fit, put it into an earthen pipkin, add a third part of capon's or gooſe greaſe to it, well clarified, or oil of walnuts, which is better, incorporate them on a gentle fire, and ſtir it continually till it is cold, and thus it is finiſhed.

To prevent froſt: take a quarter of as much oil of petroleum as you do gooſe greaſe, and no cold will congeal it: the *Italians* make theirs of the berries of the miſſetoe-tree, heated after the ſame manner, and mix it with nut oil, an ounce to a pound of lime, and taking it from the fire, add half an ounce of turpentine, which qualifies it alſo for the water.

Great quantities of bird-lime are brought from *Damaſcus*, ſuppoſed to be made of ſebeſtens, becauſe we ſometimes find the kernels; but it is ſubject to froſt, impatient of wet, and will not laſt above a year or two good. There comes alſo of it into *England* from *Spain*, which reſiſts water, but is of an ill ſcent: it is ſaid the bark of our lantona, or way-faring ſhrubs, will make as good birdlime as any.

How to uſe BIRDLIME.

When your lime is cold, take your rods, and warm them a little over the fire; then take your lime, and wind it about the top of your rods, then draw your rods aſunder one from another, and cloſe them again, continually plying and working them together, till by ſmearing one upon another, you have equally beſtowed on each rod a ſufficient quantity of lime.

If you lime any ſtrings, do it when the lime is very hot, and at the thinneſt, beſmearing the ſtrings on all ſides, by folding them together, and unfolding them again.

If you lime ſtraws, it muſt be done likewiſe when the lime is very hot, doing a great quantity together, as many as you can well graſp in your hand, toſſing and working them before the fire till they are all beſmeared, every ſtraw having its due proportion of lime; having ſo done, put them up in caſes of leather for uſe.

The beſt way of making water BIRDLIME, is the following:

Buy what quantity you think fit of the ſtrongeſt birdlime you can procure, and waſh it as long in clear ſpring water, till you find it very pliable, and the hardneſs thereof removed; then beat out the water extraordinarily well, till you cannot perceive a drop to appear, then dry it well; after this, put it into an earthen pot, and mingle with it capon's greaſe unſalted, as much as will make it run, then add thereto two ſpoonfuls of ſtrong vinegar, a ſpoonful of the beſt ſallad oil, and a ſmall quantity of the beſt *Venice* turpentine; this is the allowance of theſe ingredients, which muſt be added to every pound of ſtrong birdlime as aforeſaid.

Having thus mingled them, boil all gently over a ſmall fire, ſtirring it continually; then take it from the fire, and let it cool; when at any time you have occaſion to uſe it, warm it, and anoint your twigs or ſtraws, or any other ſmall things, and no water will take away the ſtrength thereof.

This ſort of lime is beſt, eſpecially for ſnipes and fieldfares.

Of taking ſmall BIRDS *which uſe Hedges and Buſhes, with Lime-twigs.*

The great lime buſh is beſt for this uſe, which you muſt take after this manner: cut down the main branch or bough of any buſhy tree, whoſe branch and twigs are long, thick, ſmooth, and ſtraight, without either pricks or knots, of which the willow or birch tree are the beſt; when you have pickt it and trimmed it from all ſuperfluities, making the twigs neat and clean, then take the beſt birdlime, well mixed and wrought together with gooſe greaſe, or capon's greaſe, which being warmed, lime every twig therewith within four fingers of the bottom.

The body from whence the branches have their riſe muſt be untouched with lime.

Be ſure you do not daub your twigs with too much lime, for that will give diſtaſte to the birds, yet let none want its proportion, or have any part left bare which ought to be touched, for as too much will deter them from coming, ſo too little will not hold them when they are there. Having ſo done, place your buſh in ſome quickſet or dead hedge near unto towns ends, back yards, old houſes or the like; for theſe are the reſort of ſmall birds in the ſpring time: in the ſummer and harveſt, in groves, buſhes, or white-thorn trees, quickſet hedges near corn fields, fruit trees, flax and hemp lands: and in the winter about houſes, hovels, barns, ſtacks, or thoſe places where ſtand ricks of corn, or ſcattered chaff, *&c.*

As near as you can to any of thoſe haunts plant your lime buſh, and place yourſelf alſo at a convenient diſtance undiſcovered, imitating with your mouth ſeveral notes of birds, which you muſt learn by frequent practice, walking the fields for that purpoſe very often, obſerving the variety of ſeveral birds' ſounds, eſpecially ſuch as they call one another by.

Some have been ſo expert herein, that they could imitate the notes of twenty ſeveral ſorts of birds at leaſt, by which they have caught ten birds to another's one that was ignorant therein.

If you cannot attain it by your induſtry, you muſt buy a good bird-call, of which there are ſeveral ſorts, and eaſy to be made; ſome of wood, ſome of horn, ſome of cane, and the like.

Having learnt firſt how to uſe this call, you ſhould ſit and call the birds unto you, and as any of them light on your buſh, ſtep not out unto them till you ſee them ſufficiently entangled; neither is it requiſite to run for every ſingle bird, but let them alone till more come, for the fluttering is as good as a ſtale to entice them.

This exerciſe you may uſe from ſun-riſing till ten o'clock in the morning, and from one till almoſt ſunſet.

You may take ſmall birds only with lime twigs, without the buſh.

Some have taken two hundred or three hundred ſmall twigs about the bigneſs of ruſhes, and about three inches long, and have gone with them into a field where there were hemp cocks: upon the tops of half a ſcore lying all round together, they have ſtuck their twigs, and then have gone and beat that field, or the next to it, where they ſaw any birds, and commonly in ſuch fields there are infinite numbers of linnets and green-birds which are great lovers of hemp-ſeed.

And they flying in ſuch vaſt flocks, they have caught at one fall of them upon the cocks, eight dozen at a time.

But to return, there is another way of taking birds, with lime-twigs, by placing near them a ſtale or two made of living baits, placing them aloft that they may be viſible to the birds thereabouts, who will no ſooner be perceived, but every bird will come and gaze, wondering at the ſtrangeneſs of the ſight, and having no other convenient lighting place but where the lime-twigs are, you may take what number you like of them. But the owl is a far better ſtale than the bat, being bigger and more eaſily to be perceived; beſides, he is never ſeen abroad, but he is followed and perſecuted by all the birds that are near.

If you have not a living bat or owl, their ſkins will ſerve as well, ſtuffed, and will laſt you twenty years; there are ſome have uſed an owl cut in wood and naturally painted, with great ſucceſs.

Another Method of taking all Manner of ſmall BIRDS *with* BIRDLIME.

In cold weather, that is in froſt or ſnow, all ſorts of ſmall birds gather together in flocks, as larks, chaffinches, linnets, gold-finches, yellow-hammers, buntings, ſparrows, &c.

All theſe, except the lark, perch on trees or buſhes, as well as feed on the ground.

If they reſort about your houſe, or adjacent fields, then uſe birdlime that is well prepared and not too old; which order after the following manner:

Put the birdlime into an earthen diſh, adding to it ſome freſh lard or capon's greaſe, putting one ounce of either to a quarter of a pound of birdlime, then ſetting it over the fire, melt it gently together; but you muſt be ſure not to let it boil, which would take away the ſtrength of the birdlime and ſpoil it.

It being thus prepared, and you being furniſhed with a quantity of wheat-ears; cut the ſtraw about a foot long beſides the ears, and lime them for about ſix inches from the bottom of the ears to the middle of the ſtraw; the lime being warmed that it may run the thinner upon the ſtraw, and therefore be the leſs diſcernible, and liable to be ſuſpected by the birds.

Then go into the field, carrying with you a bag of chaff, and threſhed ears, which ſcatter around for the compaſs of twenty yards in width (this will be beſt in a ſnowy ſeaſon) then ſtick up the limed ſtraws with the ears leaning, or at the ends touching the ground, then retire from the place, and traverſe the ground all round about; and by that means you diſturb the birds in their other haunts, and they will fly to the place where the chaff, *&c.* has been ſcattered, and the limed ſtraws ſet up, and by pecking at the ears of corn, and finding that they ſtick upon them, they will ſtraight-way mount up from the earth, and in their flight the bird limed ſtraws lying under their wings, will cauſe them to fall, and not

being able to diſengage themſelves from the ſtraw, may be taken with eaſe. You muſt not go and take them up when you ſee five or ſix entangled, for that may prevent you from taking as many dozen at a time.

If the birds that fall, where your limed ſtraws are, be larks, do not go near them till they riſe of themſelves and fly in great flocks; by this method ſome have caught five or ſix dozen at a time.

Some of theſe ſtraws may be laid nearer home, for taking finches, ſparrows, yellow-hammers, *&c.* which reſort near to houſes, and frequent barn-doors; where they may be eaſily taken by the foregoing method.

Having performed this in the morning, take away all the limed ears, that ſo the birds may feed boldly, and not be diſturbed or frighted againſt next morning, and in the afternoon bait the ſame place with freſh chaff and ears of corn, and let them reſt till the next morning; and then having ſtuck up freſh limed wheat-ears, repeat your morning birding recreation.

BISHOPING, a term amongſt horſe-courſers, which they uſe for thoſe ſophiſtications they practiſe to make an old horſe appear young, and a bad one good, &c.

BITCH, if ſhe grow not proud ſo ſoon as you would have her, ſhe may be made ſo, by taking two heads of garlic, half a caſtor's ſtone, the juice of creſſes, and about twelve *Spaniſh* flies or cantharides, all which boil together in a pipkin which holds a pint, with ſome mutton, and make broth thereof; give her ſome twice or thrice, and ſhe will infallibly grow proud: the ſame pottage given to a dog will make him deſirous of copulation.

Again, when ſhe is lined and with puppy, you muſt not let her hunt, for that will make her caſt her whelps, but let her walk up and down the houſe and court unconfined, and never lock her up in her kennel, for ſhe is then impatient for food, and therefore you muſt make her ſome broth once a day.

If you will ſpay your bitch, it muſt be done before ever ſhe has a litter of whelps, and in ſpaying her, take not out all the roots or ſtrings of the veins, for in ſo doing, it will much prejudice her reins, and hinder her ſwiftneſs ever after; whereas by leaving ſome behind it will make her much ſtronger and more hardy; but whatever you do, ſpay her not when ſhe is proud, for that will endanger her life, but it may be done fifteen days after; though the beſt time of all is when the whelps are ſhaped within her.

For the reſt. *See* DOGS, *and chooſing of them.*

BITT, or HORSE-BITT, in general, ſignifies the whole machine of all the iron appurtenances of a bridle; as the bitt-mouth, the branches, the curb, the ſevil-holes, the tranchefil, and the croſs chains: but it often ſignifies only the bitt-mouth in particular.

BITT-MOUTH, is a piece of iron forged ſeveral ways, in order to be put into a horſe's mouth, to keep it in ſubjection.

Of theſe bitt-mouths, ſome are ſingle cannon mouths, ſome are cannon mouths with an upſet, or mounting liberty; ſome ſcatch mouths, ſome mouths after the form of a barge, ſome with two long turning olives, and ſeveral other ſorts; all with different liberties for the tongue, or without liberty.

But all bitt-mouths ought ſtill to be proportioned to the mouth of the horſe, according as it is more or leſs cloven and wide, or more or leſs ſenſible and tender; according as the tongue and lips are higher or flatter, and as the palate is more or leſs fleſhy; obſerving with all, that if the horſe be old, the palate will always have but little fleſh upon it.

A bitt-mouth all of a-piece, without a joint in the middle, is called by the *French*, a bitt that preſſes *de l'entier*. See BARS.

BITTS: the iron which is put into a horſe's mouth, is called a bitt, or bitt-mouth; in the middle whereof there is always an arched ſpace, for the lodging of the tongue; which is called the liberty. It is the opinion of the Duke of *Newcaſtle*, that as little iron as poſſible, ſhould be put into a horſe's mouth: and we ſeldom uſe any other than ſnaffles, cannon mouths jointed in the middle, cannon with a faſt-mouth, and cannon with a port-mouth, either round or jointed.

As for the bitts in uſe, beſide the ſnaffle, or ſmall watering bitt, there is the cannon-mouth jointed in the middle, which always preſerves a horſe's mouth whole and ſound; and though the tongue ſuſtains the whole effort of it, yet it is not ſo ſenſible as the bars; which are ſo delicate, that they feel its preſſure through the tongue, and thereby obey the leaſt motion of the rider's hands.

The larger it is towards the ends fixed to the branches, the gentler it will be. We ſhould make uſe of this mouth to a horſe as long as we can; that is, if with a ſimple cannon-mouth we can draw from a horſe all the obedience he is capable of giving, it will be in vain to give him another; this being the very beſt of all.

The cannon with a faſt mouth is all of one piece, and only kneed in the middle, to give the tongue freedom. It is proper to ſecure thoſe mouths that chack or beat upon the hands: it will fix their mouths, becauſe it reſts always in one place; ſo that deadening the ſame, in a manner, thereby, the horſe loſes his apprehenſiveneſs, and will ſoon reliſh this bitt-mouth better than the laſt; which being jointed in the middle, reſts unequally upon the bars, this however becauſe not jointed in the middle, is more rude. The middle of this bitt ſhould be a little more forward, to give the more play to the horſe's tongue; and the bitt ſhould reſt rather on the gums, or outſides of the bars, than upon their very ridges.

The fourth ſort is called, the cannon-mouth with the liberty; after the form of a pigeon's neck. When a horſe's mouth is too large, ſo that the thickneſs thereof ſupports the mouth of the bitt, that it cannot work its effects on the bars, this liberty will a little diſengage it, and ſuffer the mouth of the bitt to come at, and reſt upon, his gums; which will make him ſo much the lighter upon the hand.

The port-mouth, is a cannon, with an upſet or mountain liberty; proper for a horſe with a good mouth, but a large tongue working its effects upon the lips and gums: and becauſe the tongue is diſengaged, it will ſubject the horſe that hath high bars, and in ſome degree ſenſible. This uſeful bitt, if well made, will never hurt a horſe's head.

The

The ſcatch-mouth, with an upſet or mountain liberty, is ruder than a cannon-mouth, becauſe not fully ſo round, but more edged; and preferable to them in one reſpect; which is, that thoſe parts of a cannon-mouth to which the branches are faſtened, if not well rivetted, are ſubject to ſlip; but the ends of a ſcatch-mouth can never fail, becauſe of their being over lapped; and therefore much more ſecure for vicious and ill-natured horſes.

Mr. Pignatel's cannon-mouth with the liberty, is proper for a horſe with a large tongue and round bars, as being only ſupported a little by his lips. Care ſhould be had, never to work a horſe with one rein, as long as he has one of theſe bitt-mouths. The deſcription Sir William Hope gives of this bitt is, that it has a gentle falling and moving up and down; and the liberty ſo low as not to hurt the horſe's mouth; and certainly the beſt bitt for horſes that have any thing of a big tongue.

Some are of opinion, that the beſt way to fit a horſe exactly with a bitt, is to have a great many bitts by them, and change till they hit the right: but at firſt, be ſure to let him have a gentle one; and be rightly lodged in his mouth, ſo as not to frumple his lips, or to reſt upon his tuſhes: then let him be mounted, and pulled two or three ſteps back; whereby you will know if his head be firm, if he performs frankly, or only obeys with reluctancy; that ſo you may give him another bitt, which may gain his conſent. If he inclines to carry low, you are not to give a liberty for the tongue, which will riſe too high; for that by tickling his palate, would bring his head down between his legs. *Note*, that large curbs, if they be round, are always moſt gentle.

BITE or Bruise in a Horse; the Cure—

Take of calamine quenched in white wine, two drachms, one ounce of the juice of houſeleek, two ounces of the ſeed of mallows, and one ounce of Venice treacle; make the whole up into balls, as large as walnuts, and give them in a quarter of a pint of ſallad oil; at the ſame time apply a plaiſter of hemlock and barrow-pig's greaſe well ſtamped and mixed together. Continue this for a week, and it will have its deſired effect.

Bite of venomous animals in ſheep; the Cure—

Simmer over a gentle fire, in half a pint of aqua vitæ, a ſmall handful of bruiſed rue and the like quantity of ſmallage; apply it poultice-wiſe to the wound, and give the liquor ſtrained off to the ſheep to drink.

Bite of a mad dog, in ſwine; a Remedy—

Diſſolve a handful of bay-ſalt in a pint of man's urine and a little ſoot; beat theſe together with the yolk of two eggs, and bathe the wound therewith; then lay on a plaiſter of turpentine, mithridate, and bees-wax, and give the ſwine ſome verjuice warm to drink.

BITTERN, the name of a bird of the heron-kind; in Engliſh, butterbump, and mire-drum. It builds on the ground, and lays five or ſix eggs, which are roundiſh, and of a greeniſh white. When wounded and going to be taken, ſtrikes at the perſon's eyes, and ought carefully to be guarded againſt.

BLACK, moor, or coal-black, is the colour of a horſe that is of a deep, ſhining, and lively black. Horſes entirely black, are accounted dull, but thoſe with a white foot or white ſpots in their forehead, are more alert and ſprightly.

BLACK-BIRD; this bird is known by all perſons.

She makes her neſt many times when the woods are full of ſnow, which happens very often in the beginning of *March*; and builds it upon the ſtumps of trees, by ditch-ſides, or in a thick hedge; being at no certainty, like other birds: the outſide of her neſt is made with dry graſs and moſs, and little dry ſticks and roots of trees; and ſhe daubs all the inſide with a kind of clayey earth; faſhioning it ſo round, and forming it ſo handſome and ſmooth, that a man cannot mend it.

They breed three or four times a year, according as they loſe their neſts; for if their neſts are taken away, they breed the ſooner; the young ones are brought up with almoſt any meat whatſoever.

This bird ſings about three months in the year, or four at moſt, though his ſong is worth nothing; but if he be taught to whiſtle, he is of ſome value, it being very loud, though coarſe; ſo that he is fit for a large place, not a chamber.

When black-birds, thruſhes, *&c.* are taken old and wild, and are to be tamed, mix ſome of their kind among them, putting them into cages of three or four yards ſquare, in which place divers troughs, filled, ſome with hawes, ſome with hemp-ſeed, and ſome with water; ſo that the tame teaching the wild to eat, and the wild finding ſuch a change, and alteration of food, it will, in twelve or fourteen days, make them grow very fat, and fit for the uſe of the kitchen.

BLACK-LEGS, a name given in Lincolnſhire, to a diſeaſe frequent among calves and ſheep, which in many parts of England, is called the dropſy or puffing up of the ſkin. It is a kind of jelly that ſettles in their legs and neck, and proceeds from too great a degree of moiſture in their food, which getting between the ſkin and fleſh, cannot be evacuated by perſpiration, and ſo corrupting, cauſes the rot.—To cure which, clip off the wool near the ſwelled part, and ſlit the ſkin about an inch; then dip a tent of linen in oil of ſpike, and put it in; this being twice or thrice repeated, will draw the whole of the water away. This done, ſteep an ounce of regulus of antimony in a pint of ale, with a little ſpice called grains, and ſome brown ſugar, of which, give a quarter of a pint each morning as warm as convenient.

Bladder Angling, is as much for diverſion as uſe. It is generally practiſed in large ponds, with an ox's bladder, and a bait fixed on an armed hook, or a ſnap-hook. The quick riſing of the bladder after it has been pulled under water, never fails to ſtrike the fiſh as effectually as a rod; and let him ſtruggle as much as he will the bladder always ſecures him. *See* Angling.

BLADDER and kidneys of a Horse: when the back and loins are weak, and there is a difficulty of ſtaling, with a general faintneſs, loſs of appetite, and deadneſs of the eyes; when the urine is thick, foul, and ſometimes bloody, you may then be aſſured that his kidneys and bladder are diſordered.

Rowelling and bleeding are the firſt remedies; theſe will prevent inflammations, and hinder the progreſs of the

the fever, for a fever generally attends theſe diſorders, to which you muſt alternately adminiſter the following diuretic and ſtrengthening balls; and if a clyſter is neceſſary, you may uſe the one ſubjoined. A diuretic medicine is

Take Straſburg turpentine, and Venice ſoap, of each one ounce, nitre ſix drachms, powdered myrrh two drachms; make theſe into a ball with honey, and waſh it down with any proper liquid. Or,

Take of Caſtile ſoap twelve ounces, ſcrape it very ſmall, and add two ounces of dialthæ; incorporate theſe; and make them up into balls as large as pigeons eggs. When you find the horſe afflicted as aforeſaid, diſſolve one of them in a pint of ale, and give it him as hot as he can bear it, and it will force a paſſage for the urine without much difficulty.—This is alſo good for the ſtone and gravel in the kidneys. The following is a ſtrengthening ball.

Take ſal prunella half an ounce, ſpermaceti, ſix drachms, and Lucatelli's balſam one ounce; if the urine is bloody, add half an ounce of japan earth; mix theſe into a ball with honey, and waſh it down with a decoction of marſhmallows, or other proper liquid. The Clyſter is as follows:

Take of jalap two drachms, juniper and bay berries each a handful, bruiſe them and boil them in two quarts of mallow decoction; then ſtrain off, and mix, by degrees, Barbadoes aloes two ounces, and Venice turpentine two ounces, beat up with the yolks of two eggs: when mixed as directed, add a pint of linſeed oil.

BLAIN, a diſtemper incident to beaſts, being a bladder growing on the root of the tongue, againſt the windpipe, which ſwells to ſuch a pitch as to ſtop the breath. It comes by great chafing and heating of the ſtomach, and is perceived by the beaſt's gaping and holding out his tongue, and foaming at the mouth. To cure it, caſt the beaſt, take forth his tongue, and then ſlitting the bladder, waſh it gently with vinegar and a little ſalt.

BLAZE. *See* STAR and WHITE-FACE.

BLAZES. It is a notion, that thoſe horſes that have white faces or blazes, if the blazes be divided in the middle, croſsways, is the mark of an odd diſpoſition.

BLEAK, and BLEAK-FISHING: ſome call this a freſh water ſprat, or river ſwallow, becauſe of its continual motion; and others will have this name to riſe from the whitiſh colour, which is only under the belly.

It is an eager fiſh, caught with all ſorts of worms bred on trees or plants; as alſo with flies, paſte, and ſheep's blood, *&c.*

And they may be angled for with half a ſcore hooks at once, if they can be all faſtened on: he will alſo in the evening take a natural, or artificial fly; but if the day be warm and clear, no bait ſo good for him as the ſmall fly at top of the water: which he will take at any time of the day, eſpecially in the evening: and indeed there are no fiſh yield better ſport to a young angler than theſe; for they are ſo eager that they will leap out of the water for a bait: but if the day be cold and cloudy, gentles and caddis are beſt; about two feet under water.

There is another way of taking bleak, which is by whipping them in a boat, or on a bank-ſide, in freſh water, in a ſummer's evening, with a hazel top, above five or ſix feet long, and a line twice the length of the rod: but the beſt method is with a drabble; which is, tie eight or ten ſmall hooks a-croſs a line, two inches above one another, the biggeſt hook the lowermoſt (whereby you may ſometimes take a better fiſh) and bait them with gentles, flies, or ſome ſmall red worms; by which means you may take half a dozen, or more at a time.

BLEEDING at the noſe in horſes. This happens more eſpecially in young horſes, in conſequence of the abundance of blood, that through the free paſſage of the large veins, aſcends into the head; and, paſſing to the thin veins within the noſtrils, either by its violent motion forces them, or by its corroſive quality eats them aſunder; though it ſometimes happens from a blow or violent ſtraining. To remedy which,

Take the juice of nettles, mixed with loaf-ſugar, and ſquirt it upon the horſe's noſtrils, uſing at convenient times to burn under his noſe, ſtorax, frankincenſe, or linen dipped in aqua vitæ, in a chafing-diſh; the fume of which will oblige the blood to retreat: or inſtead of nettle-juice, you may uſe that of garlic, blowing up after it, powder of dried rhubarb. *See* BLOOD-LETTING.

BLEMISH, a hunting term; uſed when the hounds, or beagles, finding where the chaſe has been, make a proffer to enter, but return.

BLEND-WATER, called alſo MOREHOUGH, a diſtemper incident to black cattle, comes either from the blood, from the yellows, or from the change of ground. In order to cure it, take bole-armoniac, and as much charcoal duſt as will fill an egg-ſhell, a good quantity of the inner bark of an oak, dried and powdered, by pounding the whole together, and give it to the beaſt in a quart of new milk, and a pint of earning.

BLEYNE or BLEYME, an inflammation ariſing from bruiſed blood between the horſe's ſole and the bone of the foot, towards the heel: of theſe there are three ſorts, the firſt being bred in ſpoiled wrinkled feet, with narrow heels, are uſually ſeated in the inward or weakeſt quarter. In this caſe the hoof muſt be pared, and the matter let out; then let oil de merveille be poured in, and the hoof be charged with a remolade of ſoot and turpentine.—The ſecond ſort, beſides the uſual ſymptoms of the firſt, infects the griſtle, and muſt be extirpated, as in the cure of a quitter bone, giving the horſe every day, moiſtened bran, with two ounces of liver of antimony, to divert the courſe of the humours, and purify the blood.—The third ſort of bleymes, is occaſioned by ſmall ſtones and gravel between the ſhoe and the ſole. In this caſe the foot muſt be pared, and the matter, if any, let out. if there be no matter, then the bruiſed ſole muſt be taken out, but if there be matter, the ſore muſt be dreſſed like the prick of a nail. *See* HOOF CAST.

BLINDNESS IN HORSES, may be thus diſcerned: the walk, or ſtep of a blind horſe, is always uncertain and unequal: ſo that he dares not ſet down his feet boldly, when led in one's hand: but if the ſame horſe be mounted by an expert horſeman, and the horſe of himſelf be a horſe of metal, then the fear of the ſpurs will make him go reſolutely and freely, ſo that his blindneſs can hardly be perceived.

Another mark by which you may know a horſe that has loſt his ſight, is, that when he hears any body enter the ſtable, he will prick up his ears, and move them backwards and forwards: the reaſon is, that a vigorous horſe having loſt his ſight, miſtruſts every thing, and is continually in alarm at the leaſt noiſe that he hears.

MOON BLIND, denotes horſes that loſe their ſight at certain times of the moon's age: to cure which, take half an ounce of lapis calaminaris, heat it red hot, and quench it in a quarter of a pint of plantain water or white wine: to this add half a drachm of aloes, and a ſpoonful of camphor, in powder; and letting them diſſolve, drop part of it into the eyes of the horſe.

BLOCK, (in Falconry) is the perch upon which they place the hawk. It ought to be covered with cloth.

BLOOD-HOUND, is of all colours; but for the generality of a black brown, and reddiſh in ſeveral places, eſpecially upon the breaſt and cheeks: they have long, thin, hanging down ears, and differ from other dogs only in their cry and barking.

Being ſet on by the voice or word of their keeper, to ſeek about for game, and having found it, they will never leave off the purſuit, until it be tired; nor will they change it for any other freſh game that they meet with; and they are obſerved to be very obedient to their maſters.

Theſe hounds are of that property, that they do not only keep to their game while living, but it being by any accident wounded, or killed, will find it out; and that by the ſcent of the blood ſprinkled here and there upon the ground, which was ſhed in its purſuit; by which means deer-ſtealers are often found out.

The blood-hound differs little or nothing in quality from the *Scottiſh* ſluth-hound, excepting that they are of a larger ſize, and not always of one and the ſame colour; for they are ſometimes red, ſanded, black, white, ſpotted, and of all colours with other hounds; but moſt commonly either brown or red.

They ſeldom bark, except in their chaſe; and are attentive to the voice of their leader.

Thoſe that are white are ſaid to be quickeſt ſcented, and ſureſt noſed, and therefore are beſt for the hare; the black ones are beſt for the boar, and the red for the hart and roe.

Though this is the opinion of ſome, yet others differ from them, becauſe their colour (eſpecially the latter) is too like the game they hunt; although there can be nothing certain collected from their colour; but indeed the black hound is the hardier, and better able to endure the cold than the white ones.

They muſt be tied up till they hunt; yet are to be let looſe now and then a little, to eaſe their bellies; and their kennels muſt be kept ſweet and dry.

There is ſome difficulty in diſtinguiſhing a hound of an excellent ſcent; but ſome are of opinion, that the ſquare and flat noſe is the beſt ſign of it; likewiſe a ſmall head, having all his legs of equal lengths, his breaſt not deeper than his belly, and his back plain to his tail; his eyes quick, his ears hanging long, his tail nimble, and the beak of his noſe always to the earth: and eſpecially ſuch as are moſt ſilent and bark leaſt.

You may now conſider the various diſpoſitions of hounds, in the finding out of their beaſt.

Some are of that nature, that when they have found the game, they will ſtand ſtill till the huntſman comes up; to whom, in ſilence, by their face, eye, and tail, they ſhew the game: others, when they have found the foot-ſteps, go forward without any voice, or either ſhew of ear or tail: another ſort, when they have found the footings of the beaſt, prick up their ears a little, and either bark or wag their tails; and others will wag their tails, and not move their ears.

Again, there are ſome that do none of theſe: but wander up and down, barking about the ſureſt marks, and confounding their own foot-ſteps with thoſe of the beaſt they hunt: or elſe forſake the way, and ſo run back again to the firſt head; but when they ſee the hare, are afraid, not daring to come near her, except ſhe ſtart firſt.

Theſe, with others who hinder the cunning labour of their colleagues, truſting to their feet, and running before their betters, deface the beſt mark, or elſe hunt counter, and take up with any falſe ſcent, inſtead of the true one; or, never forſake the highways, and yet have not learnt to be ſilent.

To theſe alſo may be added, thoſe which cannot diſcern the footing, or pricking of the hare, yet will run with ſpeed when they ſee her; purſuing her very hotly at the firſt, and afterwards tire, or hunt lazily. All theſe are not to be admitted into a kennel of hounds.

But on the contrary, thoſe hounds which are good, when they have found a hare, make ſhew thereof to the huntſman, by running more ſpeedily; and with geſture of head, eyes, ears, and tail, winding to the form, or hare's muſe, never give over proſecution with a good noiſe. They have good hard feet and ſtately ſtomachs.

And whereas the nature of the hare is ſometimes to leap, and make headings; ſometimes to tread ſoftly, with a very ſmall impreſſion in the earth: or ſometimes to lie down, and even to leap or jump out and into her own form, the poor hound is ſo much the more buſied and troubled to retain the ſmall ſcent of her pricking that ſhe leaves behind her, in which caſe it is requiſite that you aſſiſt the hound, not only with voice, eye, and hand, but with a ſeaſonable tune alſo, for in froſty weather the ſcent freezes with the earth, ſo that there is no certainty of hunting till it thaws, or that the ſun riſe.

In like manner, if a great deal of rain fall between the ſtarting of the hare and time of hunting, it is not right to hunt till the water be dried up; for the drops diſperſe the ſcent of the hare; and dry weather collecteth it again.

The ſummer-time alſo is not fit for hunting, becauſe the

the heat of the weather conſumeth the ſcent; and the nights being then but ſhort, the hare travelleth not far, feeding only in the morning and evening: beſides, the fragrancy of flowers and herbs then growing, flattens and diminiſhes the ſcent the hounds are guided by.

The beſt time for hunting with theſe hounds, is in Autumn; becauſe then the former odours are weakened, and the earth barer than at other times.

Theſe hounds do not only chaſe their game while it lives, but after it is dead alſo, by any manner of caſualty, make to the place where it lies; having in this place a ſure and infallible guide; that is, the ſcent and ſavour of the blood, ſprinkled here and there upon the ground; for whether the beaſt is wounded and lives, and eſcapes the hands of the huntſman, or if it be killed, and carried quite out of the park, (if there do but remain ſome marks of blood ſhed) theſe dogs, with no leſs facility and eaſineſs than greedineſs, will diſcover the ſame by its ſcents, carrying on their purſuit with agility and ſwiftneſs; upon which account they deſerve the name of blood-hounds.

And if a piece of fleſh be ſubtilely ſtolen and cunningly conveyed away, although all caution imaginable is uſed, to prevent all appearance of blood, yet theſe kind of dogs, by natural inſtinct, will purſue deer-ſtealers, through craggy ways and crooked meanders, till they have found them out; and ſo effectually as that they can diſcover, ſeparate, and pick them out from a great number of perſons; nay, they will cull them out, though they intermix with the greateſt throng.

BLOOD, a diſtemper in the backs of cattle, which will make a beaſt go as if he drew his head aſide, or after him. In order to cure it, you ſhould ſlit the length of two points uuder his tail, and let him bleed well; but if he bleeds too much, knit his tail next the body, and then bind ſalt and nettles bruiſed into it.

BLOOD-LETTING, the ſigns or indications of blood-letting in a horſe, are theſe: his eyes will look red, and his veins ſwell more than ordinary; he will alſo have an itching about his mane and tail, and be continually rubbing them, and ſometimes will ſhed ſome of his hair; or he will peel about the roots of his ears, in the places where the head-ſtall of the bridle lies; his urine will be red and high-coloured, and his dung black and hard, likewiſe if he has red inflammations, or little bubbles on his back, or does not digeſt his meat well; or if the white of his eye is yellow, or the inſide of his upper or nether lip be ſo, theſe are ſigns that he ſtands in need of bleeding.

The propereſt time for bleeding horſes, is in the winter and cool months, from *January* to *July*; (but in *July* and *Auguſt*, by reaſon the dog-days are then predominant, it is not good, but only in caſe of neceſſity) and ſo from *Auguſt* to *January* again.

As to the manner of bleeding; you muſt never take ſo much blood from a colt as from an older horſe, and but a fourth part as much from a yearling foal; you muſt alſo have regard to the age and ſtrength of the horſe, and before you bleed him, let him be moderately chaſed and exerciſed, reſting a day before, and three days after it, not forgetting that *April* and *October* are two principal ſeaſons for that purpoſe; and he will alſo bleed the better, if he be let to drink before he is blooded, ſo that he be not heated.

Then tie him up early in the morning to the rack without water or combing, leſt his ſpirits be too much agitated, and draw with a pair of fleams of a reaſonable breadth, about three pounds of blood, and leave him tied to the rack.

During the operation, put your finger in his mouth and tickle him in the roof, making him chew, and moving his chaps, which will force him to ſpin forth: and when you find he has bled enough, rub his body well over with it, but eſpecially the place he is blooded on, and tie him up to the rack for an hour or two, leſt he bleed afreſh: for that will turn his blood.

Mr. LAWRENCE ſays, that the well-known uſe of bleeding, is in all caſes of inflammation, or with the intent of prevention, in cholic, ſuppreſſion of urine, ſtrains, blows, or other accidents. Phlebotomy, in ſmall quantities, is ſometimes recurred to in weak and impoveriſhed habits, in order to remove the lentor of the blood, and invigorate the circulation; but in inflammatory fever, it is the ſheet-anchor, without the help of which, it would be totally impoſſible for nature, human or brute, to outride the ſtorm. Many are loſt, for want of timely or ſufficient bleeding in inflammatory caſes. The quantity even of four or five quarts, may be ſafely taken, at one time, from a large, robuſt, and plethoric horſe, ſhould the exigence of the caſe demand a very conſiderable evacuation. Upon ordinary occaſions, the portion is between one and two quarts, by meaſure; I repeat, by meaſure, becauſe notwithſtanding, ſcarce a veterinary writer ſince the days of SOLLEYSEL, has failed to declaim againſt the beaſtly and dangerous practice of drawing off a horſe's blood at random, and by gueſs upon a dunghill, like water from a water-but, yet the ſame race of hard-headed idiots, into whoſe care we ſtill wiſely commit the health of our horſes, continue the enormity. The pulſe of a horſe in full health, and not under the influence of alarm, makes from thirty-ſix (Dr. HALE'S ſtatement) to perhaps forty-five ſtrokes in a minute; a late writer on the ſtrangles, ſays a horſe with a pulſe as high as fifty, may be well, and free from fever; but we have reaſon either to ſuppoſe him in an error, or that the pulſe in horſes is an uncertain criterion. The ſtrokes may be felt by gently preſſing the temporal artery, or the ear, or the carotid arteries on each ſide the neck, or thoſe near the heart, or within the legs, and they have been found during the higheſt degree of inflammation, and great pain, to amount to one hundred and twenty in a minute.

The old writers, who were unacquainted with the circulation, and of courſe expected peculiar benefits from local bleedings, named thirty-one veins in the horſe's body, at which he might be bled; to wit, the two temple-veins; the eye-veins, beneath the eyes; the palate-veins, in the mouth; the neck-veins; the plate-veins, in the breaſt; the fore-arm-veins; the ſhackle-veins, before; the toe-veins, before; the ſide, or flank-veins; the tail-vein; the haunch-veins; the hough-veins; the ſhackle-veins, behind; and the toe-veins, behind. But

as from the inceſſant rotatory motion of the blood, bleeding cannot have a partial, but only the general effect of diminiſhing quantity, and of making more ſpace in the veſſels, it matters but little, from what vein blood be taken, any farther than the neck-veins are moſt convenient for the purpoſe, and therefore had always better be uſed.

It were to be wiſhed, that the old, rude, Patagonian method, of forcibly driving a ſharp inſtrument into the body of a horſe, with a club, or blood-ſtick, could be totally aboliſhed; but there certainly is ſome difficulty in the caſe, at leaſt with common operators. With veterinary ſurgeons in general, the practice has ceaſed, but the uſe of the ſpring-fleam is ſtill attended with inconvenience; and a gentleman in the habit of bleeding horſes, ſays, that he can perform the operation eaſieſt and beſt, with a common ſmall lancet. Every one acquainted with horſes, knows enough of the inconveniences and dangers of the ancient method; ſometimes a horſe is ſtruck ineffectually half a dozen times, ſlipping his head aſide at every ſtroke, until the ſeventh, when the buſineſs is done, too effectually, and the vein divided, an artery or perhaps a tendon wounded; ſhould the operation be upon the plate, or thigh-veins, ſuch an accident might be fatal.

The moſt proper part of the neck to which to apply the lancet, is about a hand's breadth from the head, and one inch below the branching, or joining of the vein, which runs from the lower jaw, and which will appear full by preſſing the main branch; the integuments alſo are thinneſt thereabouts. In caſe, from the folly of frequent blood-letting, the neck of the horſe ſhould be covered with ſcars, it is then better to have recourſe elſewhere, and an operator ſhould accuſtom himſelf to bleed on either ſide indifferently. We have the authority of Mr. CLARKE, for adviſing that a ligature be never made until (ſuppoſing the horſe upon his legs) the orifice be opened, and even then it will frequently be needleſs, and as the preſſure of the finger will in general occaſion the blood to flow ſufficiently free. I have ſeen ligatures made ſo exceſſive hard by ignorant ſmiths, that the patients have been nearly ſuffocated, and there are inſtances enough of horſes abſolutely falling down in an apoplectic fit, from the bandage being long continued upon ſuch, which from ill uſage were ſhy at the operation of bleeding. When a horſe's head may be tied up to the rack, pinning the orifice is ſeldom neceſſary; but if it muſt needs be pinned, care ought to be taken that the ſkin be not drawn too far from the vein, ſo as to admit the blood between the ſkin and fleſh, which frequently happens, producing ſuppuration, and a ſwelled neck: another precaution of equal conſequence with any of the foregoing, is, that in caſe of accident in bleeding, the patient be immediately put into proper hands, if within the reach of ſuch, from a rational apprehenſion of the cures of ignorant bunglers, which, their tedioufneſs and danger out of queſtion, too often leave an indelible deſignation of the doctor upon the body of the horſe.

SOLLEYSEL ſpeaks at large of the prognoſticks to be drawn from the appearace, colour, and conſiſtence of the blood in horſes, and therein ſeveral authors have copied him; but Mr. CLARKE obſerves, that the blood of horſes which labour hard generally appears of a darkiſh or deep red, and ſometimes with a thick yellow or buff cruſt; and that the blood of a ſick horſe will often have the appearance of one in full health, and *vice verſâ*.

BLOOD-SPAVIN. *See* SPAVIN.

BLOOD IN HORSES, *to ſtaunch*. If a horſe happens to bleed exceſſively, ſo that, if not timely ſtopped, he may be weakened, or otherwiſe endangered, uſe the following remedy.

Take the wool of a hare or coney; dip it in vinegar, and then ſtrew upon it the powder of calcined egg-ſhells, and apply it to the place; or you may, for want of the former, dip it in nettle-juice and bay-ſalt, or apply to the wound or ſorrance a poultice of hemlock and the bark of elder-root. Or,

Take aloes hepatic and olibanum, of each half an ounce, and the wool of an old hare; bruiſe them with the white of an egg, and ſpread them on cotton-wool, binding them to the place, and there ſuffering them to continue till ſuch time as you find the blood is turned back, and the film knit together, which will be within the ſpace of two or three days. Or,

Take hare or rabbit's wool, and fill the cut or ſlit full of it: ſo hold it to with your hand, or bind it faſt with ſome ſtring; then burn the upper leather of an old ſhoe, and take the aſhes of it and ſtrew among the wool, and that will ſtay the bleeding; but let it lie on twenty-four hours before you take it off; then take a little wax, honey, turpentine, ſwine's greaſe, and wheat flour, ſet them all on the fire, and let them boil gently; ſtir and blend them together, then take them from the fire, and uſe them at your leiſure. And, if there be a cut of any deepneſs, lay in a tent of flax or linen cloth dipped in the ſalve, but lay a plaiſter of the ſame over it; ſo let it lie on twenty-four hours; then remove it, and that is enough; it will heal it for certain.

BLOODY-HEELED-COCK. *See* HEELER.

EBULLITION OF THE BLOOD. A diſeaſe in horſes which proceeds from want of exerciſe, and gives riſe to outward ſwellings, frequently miſtaken for the farcin.

BLOOD RUNNING ITCH happens to an horſe by an inflammation of the blood, being over-heated by hard riding, or other hard labour. It gets between the ſkin and the fleſh, and makes a horſe to rub, ſcrub, and bite himſelf; which, if let alone too long, will turn to a mange, and is very infectious to any horſe that ſhall be nigh him; and the cures both for this and the mange, beſides the general ones, of bleeding in the neck-vein, ſcraping him, and other things, are various.

BLOOD-SHOTTEN EYES, IN HORSES. Cure—Steep Roman vitriol in white roſe-water, or for want of that in ſpring-water, and waſh the eyes with it twice or thrice a-day.

BLOODY FLUX, IN HORSES: is a profuſion of bilious juices, which, being diſcharged from the ſweetbread and gall-bladder, cauſes an irritation, and a great quantity of blood to flow thither. When there is

blood discharged by the guts, the following powder may be given in warm port-wine.

Take cinnamon and tormentil-root of each half an ounce, saffron and cochineal of each two drachms, three ounces of powdered oyster-shells, contrayerva-root and Virginia snake-root, of each one ounce: when these are all well powdered, it is a sufficient quantity for six papers; two of which may be given every day in warm wine. Keep him well covered, and give no hay for two or three hours after the drink.

In some cases of the bloody-flux, the following clyster may be used with success: Take a quart of forge-water, and boil in it four ounces of oak-bark, two ounces of tormentil-roots; balaustines and red-rose leaves, of each a handful. To the strained decoction add three ounces of diascordium, one ounce of mithridate, and half a drachm of opium. Let this be injected warm, and repeated as often as there is occasion: if you are provided with a syringe that has a pretty large pipe, you may sometimes add two ounces of French bole, in powder or sealed earth.

But, above all things, you are to avoid mixing oil or butter, or any other greasy matter, with clysters that are of this intention, as is common among farriers; for these things are directly contrary to the nature of those applications, and will not only render their operation ineffectual, but increase the disease, and, instead of astringing and fortifying the bowels, will weaken them by causing a greater relaxation of their fibres.

Bloody-Urine. The disorder of staling blood by horses proceeds from various causes; from over straining when at work; travelling in hot weather; eating of green beetles upon the twigs or shrubs in the hedges, where the cattle brouze, or hot or spirituous herbs in the beginning of the grass-season; exposed to the cold when he has been over-heated; drinking too much water when put to hard exercise; and may sometimes proceed from an ulceration of the kidneys, when they are worn and abraded by sand or gritty matter, or by the acrimony and sharpness of the corruption that proceeds from the ulcer; yet the most usual cause of staling blood happens, when the renal ducts have been over-distended by any of the causes before-mentioned; and blood, for the most part, follows a too great profusion of urine, though this is seldom attended to by farriers.

As to the cure, whether there be only a great profusion of urine, or a flux of the blood, it is to be performed chiefly by medicines that strengthen and agglutinate, and likewise by such things as will divert the humours another way, by opening the pores; only, in case of blood, a vein should by all means be opened in the neck or breast, to make as speedy a revulsion as possible; because this kind of hæmorrhage proves sometimes fatal to horses, and that very suddenly. To cure which

After bleeding, a cooling purge, wherein sal-polychrest, or sal-prunella, has been dissolved, will be very convenient, as the following:

Take sal-prunella and sal-polychrest, of each one ounce; veleres, in powder, two ounces; barley-water, one quart; honey, half a pound; made warm, and given early in the morning for two or three days. Or,

Take rhubarb and jalap, in powder, of each half an ounce; salt of nitre, one ounce; with a sufficient quantity of honey and flour, make them into a ball, to be given as above; be careful that the horses have warm mashes of bran and water, during the operation of the physic.

But, if the flux of blood be violent, take two ounces of salt or sugar of lead, and dissolve it in a quart of vinegar or verjuice; and apply it cold to his breast, and it will stop it immediately, unless it proceeds from some pretty large branch of an artery, and in that case, unless the rupture be in the urinary passage, where it may be reached by a styptic injection, it will soon prove mortal. If your horse has got a fever, his feeding must be very moderate; if he has no other accident but a flux of urine, he may be indulged to feed somewhat more liberally, and among his oats may be strewed the seeds of melons, gourds, or white poppies; three or four of the heads of the said poppies, with the seeds, may be cut to pieces, and boiled in his water, which will give it no disagreeable taste. You may also give him now and then half a pint of sweet-oil, for all those things are very proper, and they will help to blunt the sharpness of the urine; but care must be taken not to let him drink too much water, but rather give it him the oftener, unless it be softened in the manner directed: or any of the following methods may be used at discretion.

Take a quantity of that cranesbill which is called herb-robert, bruise it in a mortar, and sprinkle it with red-port wine; when it is well mashed, press out the juice, and give a quarter of a pint of it every night and morning. If three doses do not perfectly stop the complaint, let the creature be blooded, and continue the medicine as before. Or,

Take of the herb called hart's-tongue, half a handful; piony-roots sliced, half an ounce; the juice of betony, half a pint; boil them in stale beer, and give them as hot as he is capable to endure, the liquid part only; and so continue to do in the morning fasting for a week together, and the defect will cease. Or,

Take piony-grass, scabious, and camomile, of each a pugil or half a handful, bruise cloves or cinnamon; boil these in a quart of vinegar or verjuice, and give hot to the beast fasting with a drenching-horn, a pint in a morning, and, if you see this stops it not, give three or four mornings the like quantity; or give him a dishful of the curds of runnet in a quart of milk, and let him fast four hours. Or,

Take shepherd's-purse, and a little cinnamon, boil it in two pints of red wine; so give it to the beast. Some take a loach, and put it down the throat quick. Or take blood-wort, shepherd's-purse, or knot-grass, of each an equal quantity; stamp all together, then strain them, and put them in a quart of red cow's milk; put to it some runnet of the said milk, and mix with it the leaven of brown bread; then strain them, and give it with a horn eight or nine days, if need be. Some give powder of husks of acorns in red wine.

BLOOD-RUNNING ITCH happens to a horse by an inflammation

inflammation of the blood, being over-heated by hard riding, or other ſore labour. It gets between the ſkin and the fleſh, and makes a horſe to rub, ſcrub, and bite himſelf; which, if let alone too long, will turn to a grievous mange, and is very infectious to any horſe that ſhall be nigh him; and the cures, both for this and the mange, beſides the general ones, of bleeding in the neck-vein, ſcraping him, and other things, are various. *See* MANGE.

BLOSSOM, or PEACH-COLOURED HORSE; is one that has his white hair intermixed all over with ſorrel and bay hairs.

Such horſes are ſo inſenſible and hard, both in the mouth and in the flanks, that they are ſcarce valued: beſides that, they are apt to turn blind.

BOAR WILD, although *England* affords no wild boars, yet being ſo plentiful in *Germany* and other countries, and affording ſo noble a chaſe, which is ſo much uſed by the nobility and gentry in thoſe parts, I ſhall give the following account:

A wild boar is called a pig of the ſounder, the firſt year of his age; a hog the ſecond; a hog's ſteer the third; and a boar the fourth; when leaving the ſounder, he is alſo termed a ſingler or ſanglier. This creature is farrowed with as many teeth at firſt, as he ſhall ever have afterwards: which only increaſe in bigneſs, not in number; among theſe they have four called tuſhes, or tuſks, the two uppermoſt of which do not hurt when he ſtrikes; but ſerve only to whet the other two loweſt, with which they frequently defend themſelves and kill, as being greater and longer than the reſt. This is reckoned a beaſt of venery by huntſmen.

The common age of a boar is twenty-five or thirty years; they go to rut about *December*, and their great heat laſts about three weeks; and although the ſows become cold of conſtitution, not coveting the company of the boar, yet they do not ſeparate until *January*; and then they withdraw themſelves unto their holds, wherein they keep cloſe three or four days, not ſtirring thence, eſpecially if they meet with ſuch places where fern grows, the roots of which they delight to eat.

It is eaſier to take a boar in a toil in *April* or *May*, than in any other ſeaſon, by reaſon they ſleep at that time more ſoundly, which is cauſed by their eating of ſtrong herbs, and buds of trees, which moiſten their brains, and cauſe ſleep. Alſo, the ſpring time occaſions their ſleeping.

Their food is on corn, fruits, acorns, cheſnuts, beech-maſt, and all ſorts of roots; when they are in marſhy and watery places, they feed on water-creſſes, and ſuch things as they can find: and when they are near the ſea-coaſt, they feed on cockles, muſcles, oyſters, and ſuch like fiſh.

A boar moſt commonly lies in the ſtrongeſt holds of thorns and thick buſhes, and will ſtand the bay before he will forſake his den.

If he is hunted from a ſtrong thick covert, he will be ſure to go back the ſame way he came, if it be poſſible; and when he is rouzed, he never ſtops, until he comes to the place where he thinks himſelf moſt ſecure.

If it ſo happens that there is a ſounder of them together, then, if any break ſounder, the reſt will run that way; and if he is hunted in a hold or foreſt where he was bred, he will very difficultly be forced to quit it, but ſometimes he will take head, and ſeem to go drawing to the outſides of the covert; but it is only to hearken to the noiſe of the dogs; for he will return again, from whence he will hardly be compelled till night; but having broken out, and taken head endways, he will not be put out of his way by man nor beaſt, by voice, blowing, or any thing elſe.

A boar will not cry when he is killed, eſpecially a great boar; but the ſows and young ones will. In fleeing before the dogs, he neither doubleth, nor croſſeth, nor uſeth ſuch ſubtleties as other beaſts of chaſe do, as being heavy and ſlow, ſo that the dogs are ſtill in with him.

How to hunt a BOAR *at Force with Dogs.*

The ſeaſon for hunting the wild boar, begins about the middle of *September*, and ends in *December*, at which time they go a brimming.

It is not convenient to hunt a young boar of three years old at force; for he will ſtand up as long (if not longer) than any light deer, that beareth but three in the top; but in the fourth year you may hunt him at force as you do a hart at ten, and will ſtand up as long. Therefore if a huntſman goes too near a boar of four years old, he ought to mark whether he went timely to his den or couch, or not; for commonly thoſe boars which tarry till day-light, go into their dens, following their paths or ways a long time, eſpecially where they find fern or beech maſts, whereon they feed; they are very hardy; and in the raiſing of this animal one need not be afraid to come near him, for he values you not, but will lie ſtill, and will not be reared alone.

But if you find a boar which ſoileth oftentimes, and which routeth ſometimes here and ſometimes there, not ſtaying long in a place, it is a ſign that he has been ſcared, and withdraweth himſelf to ſome reſting-place, and ſuch boars moſt commonly come to their dens or holds two or three hours before day, and the huntſman muſt take care how he comes too near ſuch a boar, for if he once finds him in the wind, or have the wind of his dogs, he will ſoon be gone.

It is alſo to be obſerved, that if a boar intends to tarry in his couch, he makes ſome doublings or croſſings at the entry of it, upon ſome highway or beaten path, and then lies down to reſt; by which means a huntſman being early in the woods, may judge of his ſubtlety, and accordingly prepare to hunt him with dogs that are either hot ſpirited or temperate.

If it be a great boar, and one that hath laid long at reſt, he muſt be hunted with many dogs, and ſuch as will ſtick cloſe to him, and the huntſman, or ſpearman, on horſeback, ſhould be ever amongſt them, charging the boar, and as much as poſſible to diſcourage him: for if you hunt ſuch a boar with five or ſix couple of dogs, he will not regard them, and when they have chaſed him a little, he will take courage, and keep them at bay, ſtill running upon any thing he ſees be-

fore him; but if he perceives himſelf charged and hard laid unto with dogs, he will be diſcouraged, and turn head and fly to ſome other place for refuge.

You ought alſo to ſet relays, which ſhould be the beſt old ſtaunchest hounds of your kennel; for if they ſhould be young hounds, and ſuch as are ſwift and raſh to ſeize him before the reſt come up, they will be killed or ſpoiled by him.

But if he be a boar that is accuſtomed to flee end ways before the dogs, and to take the champagne country, then you may caſt off four or five couples at firſt, and ſet all the reſt at relays, about the entrance of the fields where you think he is likely to flee; for ſuch a boar will ſeldom keep the hounds at a bay, unleſs he be forced, and if he does ſtand at bay, then the huntſman ought to ride in unto him as ſecretly and with as little noiſe as poſſible, and when he is near him, let them caſt round about the place where he ſtands, and run upon him all at once, and it will be odds, but that they will give him his death's wound with their ſpears or ſwords, provided they do not ſtrike too low; for then he will defend the ſtrokes with his ſnout; but be ſure you keep not too long in a place, but uſe a quick motion.

You may alſo take notice, that if there be collars of bells about the dog's necks, a boar will not ſo ſoon ſtrike at them; but flee end-ways before them, and ſeldom ſtand at bay.

It is expedient to raiſe a boar out of the wood early in the morning, before he hath made water, for the burning of his bladder quickly makes him weary; when a boar is firſt raiſed, he is uſed to ſnuff in the wind, to ſmell what is with, or againſt him.

Now if you ſtrike at him with ſword or boar-ſpear, do not, as has been ſaid, ſtrike low, for then you will hit him in the ſnout, which he values not, ſince he watches to take blows on his tuſhes or thereabouts; but lifting up your hand ſtrike right down, and have a ſpecial care of your horſe, for if you ſtrike and hurt him, ſo will he you if he can; therefore in thus aſſaulting boars, the hunters muſt be very careful, for he will ruſh upon them with great fierceneſs.

However, he very rarely ſtrikes a man, till he is firſt wounded himſelf, but afterwards it behoves the hunters to be very wary, for he will run fiercely, without fear, upon his purſuers, and if he receives not his mortal wound, he overthrows his adverſary, unleſs he falls flat on the ground, when he needs not fear much harm; for his teeth cannot cut upwards but downwards; but with the female it is otherwiſe, for ſhe will bite and tear any way.

But further, as the hunting ſpears ſhould be very broad and ſharp, branching forth into certain forks, that the boar may not break through them upon the huntſman, ſo the beſt places to wound him are the middle of his forehead, between the eye-lids, or elſe upon the ſhoulder, either of which is mortal.

Again, in caſe the boar makes head againſt the hunter, he muſt not fly for it, but meet him with his ſpear, holding one hand on the middle of it, the other at the end, ſtanding one foot before another, and having a watchful eye upon the beaſt, which way ſoever he winds or turns; for ſuch is his nature, that he ſometimes ſnatches the ſpear out of the hunter's hands, or recoils the force back again upon him; in theſe caſes there is no remedy, but for another of his companions to come up and charge the boar with his ſpear, and then make a ſhew to wound him with his dart, but not caſting it, for fear of hurting the hunter.

This will make the boar turn upon the ſecond perſon, to whoſe aſſiſtance the firſt muſt again come in, with which both will have work enough: nay when the boar feels himſelf ſo wounded that he cannot live, were it not for the forks of the boar-ſpear, he would preſs upon the vanquiſher and revenge his death.

And what place ſoever he bites, whether man or dog, the heat of his teeth cauſeth an inflammation in the wound.

If therefore he does but touch the hair of the dog he burns it off; nay huntſmen have tried the heat of his teeth, by laying hairs on them as ſoon as he was dead, and they have ſhrivelled up as if touched with a hot iron.

The boar is a beaſt of ſuch great force, and ſo ſlow of foot by reaſon of his heavineſs, that he is not properly termed a beaſt of venery, for he chiefly truſts in his ſtrength and tuſhes to be his defence, and not to his feet; ſo that he is more properly to be hunted with ſtout maſtiffs than by greyhounds, which cannot ſo well defend themſelves from his fury.

Alſo it ſpoils them from hunting other flying chaſes, by reaſon he leaves ſo ſtrong a ſcent, ſo that they hunt with greater eaſe than at light chaſes, which are more painful to them to find, and to hold the ſcent.

The way to know a great BOAR *by his Foot*, &c.

To know him by his foot, the form or print of it ought to be great and large, the toes round and thick, the edge of the hoof worn and blunt, without cutting and paring the ground ſo much as the younger doth: and the guards, which are his hinder claws, or dew claws, ſhould be great and open, one from the other; the treading of his foot ſhould be deep and large, which indicates the weightineſs of his body, and his ſteps ſhould be great and long.

By the length and depth of his routing his ſize may be known; for a wild ſwine routs deeper than our ordinary hogs, becauſe their ſnouts are longer: and alſo by the length and largeneſs of his ſoil, when he walloweth in the mire; alſo when he comes out of the ſoil, he will rub himſelf againſt a tree, by which his height will appear; as alſo when he ſticks his tuſhes into it, by which the largeneſs of them will appear; they alſo obſerve the bigneſs of his leſſes, and the depth of his den.

A boar is ſaid to feed in the corn; but if in the meadows or fallow fields, they ſay he routeth or wormeth, or ferneth; but when he feeds in a cloſe, and routeth not, they ſay he graſeth.

Boar hunting is very uſual in *France*, and they call it *ſanglier*. In this ſort of hunting the way is to uſe terrible ſounds and noiſes, as well of voice as horns, to make the chaſe turn and fly, becauſe they are ſlow and

and truſt to their tuſks for defence. But this muſt be done after his den or hold is diſcovered, and the nets be pitched.

Though theſe wild boars are frequent in *France*, we have none in *England;* yet it may be ſuppoſed that we had them here formerly; but did not think it convenient to preſerve that game.

In the *French* hunting, when the boar ſtands at bay, the huntſmen ride in, and with ſwords and ſpears ſtrike on that ſide which is from their horſes, and wound and kill him.

But the ancient *Roman* method of hunting the boar, was ſtanding on foot, or ſetting their knees to the ground, and charging directly with their ſpears: and the nature of the boar being ſuch, he ſpits himſelf with great fury, running upon the weapon to come at his adverſary, and ſo, ſeeking his revenge, meets his own deſtruction.

BOAR. A horſe is ſaid to boar when he ſhoots out his noſe as high as his ears, and toſſes his noſe in the wind. *See* WIND.

BOBBING FOR EELS. You muſt provide a large quantity of well ſcoured lob-worms, and then with a long needle paſs a thread through them from head to tail until you have ſtrung about a pound. Tie both ends of the thread together, and then make them up into about a dozen or twenty links. The common way is to wrap them about a dozen times round the hand, and then tying them all together in one place, makes the links very readily. This done, faſten them all to a ſmall cord, or part of a trowling line, about four yards in length. Above the worms there ſhould be a ſmall loop to fix the worms to, and for a lead plummet to reſt on. The plummet ſhould weigh about half a pound, or from that to a pound, according to the ſtream, the ſmaller the line the leſs the plumb: it ſhould be made in the ſhape of a pyramid, with a hole through the middle for the line to paſs through; the broad part of the plummet, or the baſe of the pyramid, ſhould be towards the worms, becauſe they will keep it more ſteady. When you have put your plummet on your line, you muſt faſten it to a ſtrong, ſtiff, taper pole, of about three yards long, and then the apparatus is finiſhed.

Being thus prepared, you muſt angle in muddy water, or in the deeps or ſide of ſtreams, and you will ſoon find the eels run ſtrongly and eagerly at your bait. When you have a bite, draw them gently up towards the top of the water, and then ſuddenly hoiſt them on the ſhore, or in your boat; by this means you may take three or four at a time.

BODY OF A HORSE. In chuſing a horſe you muſt examine whether he has a good body, and is full in the flanks. It is no good ſign, when the laſt of the ſhort ribs is at a conſiderable diſtance from the haunch bone, or when the ribs are too much ſtraightened in their compaſs; they ought to be as high as the haunch bone, or very little leſs, when the horſe is in good caſe; but though ſuch horſe may for a time have pretty good bodies, yet if they be much laboured they will loſe them.

A narrow-cheſted horſe can never have a good body, not breathe well; and ſuch horſes as have ſtraight ribs and being great feeders, and conſequently come to gulf up their bellies, ſo as it not being poſſible for the entrails to be contained within the ribs, they will preſs down and make a cow's belly; theſe are alſo difficult to be ſaddled, but have generally good backs, and though their croups are not ſo beautiful, being for the moſt part pointed, yet to ſupply that, they have excellent reins; theſe horſes are commonly called ſow backs.

A light bodied and fiery horſe a man never ought to buy, becauſe he will ſoon deſtroy himſelf, but fierceneſs ought never to be confounded with vigour and high mettle, which laſt does not conſiſt in fretting, trampling, dancing, and not ſuffering any horſe to go before him, but in being very ſenſible of the ſpurs.

You ought to ſhun light bellied horſes, which are very apt to be troubled with ſpakins, jardens, &c. and as painful ſcratches in the hind-legs often take away a horſe's belly, this ought not to deter you from buying, unleſs they be in the back ſinew of the legs, a pretty way above the paſtern joint, which is one of the moſt troubleſome external maladies a horſe can have.

Except a low caſed horſe eats much hay, he cannot be made plump, which will make him have a belly like a cow with a calf, and may be remedied with a ſurcingle a foot and a half broad, with two little cuſhions to it, that may anſwer to the top of the ribs on either ſide the back-bone, to preſerve the back from being galled. In the next place conſider the flank.

You are to obſerve that the ſtrongeſt ſtate of body, which is the higheſt fleſh, provided it be good, hard, and without inward foulneſs, is the beſt; yet you muſt take notice, that his ſhape and feeding are to be conſidered; to his ſhape and body, ſome that be round, plump, and cloſe knit, will appear fat, when they really are lean and in poverty; and others that are raw boned, ſlender and looſe knit together, will appear lean, deformed, and poor, when they are fat, foul, and full of groſs humours.

So likewiſe as to their feeding; ſome will feed outwardly, carrying a thick rib, when they are inwardly clean, and without all manner of foulneſs: and there are others that appear clean to the eye, ſhewing nothing but ſkin and bone, when they are full of inward fatneſs: in this caſe there are two helps, the one inward, the other outward.

The inward help is only ſmart exerciſe, which diſſolves and melts the foulneſs; and ſtrong ſcourings, which will bring it away.

The outward help in handling and feeling his body, eſpecially the ribs towards his flank, and if his fleſh generally handle looſe and ſoft, your fingers ſinking or pitting in, it is a ſign of his foulneſs; but if his fleſh be hard and firm, and only upon his hindmoſt rib handles ſoft and downy, it is a ſign there is greaſe and foul matter within, which muſt be removed let him appear ever ſo lean.

If he be fat and thick, and as it were cloſed up under the chaps, or if his jaws handle full and fleſhy, it is a ſign of much foulneſs, both in the head and body; but if he handle thin, clean, and only with ſome lumps or ſmall kernels within his chaps, in ſuch caſe, it is a ſign only of ſome cold newly taken.

BOILS OR BLAINS, IN SWINE.—The Cure.

Take bees-wax, turpentine, Burgundy-pitch, and a little ſoft greaſe to make them into a plaiſter over a gentle fire; clip away the hair or briſtles where the ſore is; anoint it firſt with ointment of tobacco, and then lay on the plaiſter, and, having kept it on two or three days, take it off, which if you find drawn to a head, and ready for lancing, you may do it; if not, clap on a freſh plaiſter for a day or two longer, and then lance and ſprinkle burnt allum or burnt ſalt on the wound, after anoint it with the former ointment, ſo lay on a plaiſter of ſheep's-ſuet and bees-wax to heal it.

BOLTING, OR BOULTING, *among ſportſmen*, ſignifies rouſing or diſlodging a coney from its reſting-place. They ſay to bolt a coney, ſtart a hare, rouſe a buck, &c.

BONES, FRACTURED OR STRAINED, IN HORSES or other CATTLE.—Cure.

Put thoſe that are diſlocated in their right place; then take an ointment of bees-wax, turpentine, deer's-ſuet, the juice of mugwort, ſtone-pitch, and mellilot, ſoftened with the oil of earth-worms, and bind up the place, ſupplying it with ointments as occaſion requires.

BOLSTERS OF A SADDLE, are thoſe parts of a great ſaddle which are raiſed upon the bows, both before and behind, to hold the rider's thigh, and keep him in a right poſture, notwithſtanding the diſorders the horſe may occaſion.

Common ſaddles have no bolſters. We uſe the expreſſion of fitting a bolſter, when we put the cork of the ſaddle into the bolſter to keep it tight.

That part of the ſaddle being formerly made of cork, took firſt that name, though now it is made of wood.

BONE-SPAVIN. *See* SPAVIN.

BORING, an operation in uſe for the cure of wrenched ſhoulders in horſes; which is performed thus: having cut a hole in the ſkin over the part affected, they blow it up with a tobacco-pipe, as a butcher does veal: after which they thruſt a cold flat iron, like the point of a ſword-blade, eight or ten inches up between the ſhoulder-blade and the ribs.

BOTTS IN HORSES are ſhort thick worms like a maggot, having black heads, and are engendered through the corruption of heat and moiſture in the maw or bowels of a horſe, where they gnaw and afflict him in a heavy manner, and are diſcerned by his lifting up the feet to ſtrike at his belly, and the ſmall ſtomach he has to feed. To deſtroy them uſe the following ingredients.

Take rue, ſavin, night-ſhade, the ſeeds of ameos, each two ounces; bruiſe them well, and with honey and allum make them into little balls, and, buttering them over, ſuffer him to ſwallow two of them in the morning faſting, and, about an hour after, give him of ſallad-oil and aqua vitæ, each a quarter of a pint, very hot; and after that let him ſtand another hour before you give him any provender; and this rule obſerve for a week together.

BOTTS, IN SHEEP. Theſe are known by the ſheep's ſtamping often, and ſtriking at his belly with the feet, looking on its ſides, &c.—Remedy.

Stamp the leaves of coriander and wormwood: mix the juice with honey, and give it the ſheep faſting, in a little vinegar or verjuice.

BOUILLION, is a lump or excreſcence of fleſh that grows either upon or juſt by the frush, inſomuch that the frush ſhoots out like a lump of fleſh, and makes the horſe halt; and this we call the fleſh blowing upon the frush.

Your manage horſes, which never wet their feet, are ſubject to theſe excreſcences, which make them very lame.

BOULETTE; a horſe is called boulette, when the fet-lock, or paſtern joint, bends forward and out of its natural ſituation; whether through violent riding, or by reaſon of being too ſhort jointed; in which caſe the leaſt fatigue will bring it.

BOUTE; a horſe is called boute, when his legs are in a ſtraight line from the knee to the coronet.

Short jointed horſes are apt to be aboute, and on the other hand long jointed horſes are not.

BOW BEARER, an under officer of the foreſt, whoſe oath will inform you of the nature of his office, in theſe words—"I will true man be to the owner of this foreſt, and to his lieutenant, and in their abſence, I ſhall truly overſee, and true inquiſition make as well of ſworn men, as unſworn, in every bailiwick, both in the north bail and ſouth bail of this foreſt; and all manner of treſpaſs done either to vert or veniſon, I ſhall truly endeavour to attach or cauſe to be attached, in the next court of attachment, there to be preſent without any concealment had to my knowledge; ſo help me God."

BOWET, BOWESS } a young hawk ſo called by falconers, when ſhe draws any thing out of her neſt, and covets to clamber on the boughs.

BOWLING: the firſt and greateſt cunning to be obſerved in bowling, is the right chuſing your bowl, which muſt be ſuitable to the grounds you deſign to run on. Thus for cloſe alleys your beſt choice is the flat bowl. 2. For open grounds of advantage, the round biaſſed bowl. 3. For green ſwards that are plain and level, the bowl that is as round as a ball.

The next thing that requires your care, is the chuſing out your grounds, and preventing the winding hangings, and many turning advantages of the ſame, whether it be in open wide places, as bowling-greens, or in cloſe bowling alleys.

Laſtly, have your judgment about you, to obſerve and diſtinguiſh the riſings, fallings, and advantages of the place where you bowl.

BOWS OF A SADDLE, are two pieces of wood laid arch-wiſe, to receive the upper part of a horſe's back, to give the ſaddle its due form, and keep it tight.

The fore-bow which ſuſtains the pommel, is compoſed of the withers, the breaſt, the points or toes, and the corking.

The withers, is the arch that riſes two or three fingers over the horſes withers.

The

The breaſts are placed where the arch, or upper part of the bows, ends.

The points, or toes, are the lower part of the bow: and the corkings are pieces of wood formerly pieces of cork, upon which we fit and make faſt to the bolſters.

The hind-bow bears the troſſequin, or quilted roll.

The bows are covered with ſinews, run all over the bows to make them ſtronger; then they ſtrengthen them with bands of iron to keep them tight; and on the lower ſide of the bows, nail on the ſaddle ſtraps, with which they make faſt the girths.

BRACE, is commonly taken for a couple, or pair, and applied by huntſmen to ſeveral beaſts of game, as, a brace of bucks, foxes, hares, *&c.* alſo a brace of greyhounds, is a proper term for two.

BRAMBLE-NET, otherwiſe called a hallier; is a net to catch birds with, and of ſeveral ſizes: the great meſhes muſt be four-ſquare, thoſe of the leaſt ſize are three or four inches, and thoſe of the biggeſt are five: in the depth they ſhould not have above three or four inches, but as for the length they may be enlarged at pleaſure: but the ſhorteſt are uſually eighteen feet.

If you intend to have your net of four meſhes deep, make it of eight; foraſmuch as it is to be doubled over with another net; likewiſe between the ſaid doublings; the inward net ſhould be of fine thread, neatly twiſted, with meſhes two inches ſquare, made lozenge wiſe, with a neat cord drawn through all the upper meſhes, and one through the lower, whereby you may fix it to the doubled hallier: then, laſtly, faſten your net to certain ſmall ſticks, about a foot and a half, or two feet long, and about the ſame diſtance from each other: the inward net muſt be both longer and deeper than the outward, that it may hang looſe, the better to entangle the game. *See* Plates VII. and XII.

BRANCH STAND, (with Falconers) a term uſed to ſignifiy the making a hawk leap from tree to tree, till the dog ſprings the partridge.

BRANCHERS *among fowlers and falconers*, ſignifies a young bird well fledged, which has left the neſt, though not ſufficiently ſtrong to fly far, or ſhift for itſelf, but remains in the buſhes and hedges adjacent to its native dwelling, where it is fed by the dam.

The branchers of hawks are alſo called ramage-falcons; and thoſe of nightingales, puſhers.

Canary-birds when in their firſt year, are called branchers; but when juſt flown, and unable to feed themſelves, puſhers.

BRANCHES OF THE BRIDLE, are two pieces of iron bended, which in the interval between one and the other, bear the bitt-mouth, the croſs-chains, and the grub; ſo that to one end they anſwer to the head-ſtall, and on the other to the reins, in order to keep the head of the horſe in ſubjection. A hardy, bold, or ſtrong, branch is one that brings in the head. A weak branch, is a branch that was formerly uſed for raiſing the head, but now is rejected; eſpecially ſince the diſcovery of the error of thoſe, who fancied, that it raiſed after the ſame manner with the kneed-branches. *See* BANQUET.

BRASSICOURT, OR BRACHICOURT; is a horſe whoſe fore legs are naturally bended arch-wiſe; being ſo called by way of diſtinction from an arched horſe, whoſe legs are bowed by hard labour.

BRAYE, an obſolete *French* word: made uſe of by ſome to ſignify the entry of the horſe's throat; or the extremity of the channel towards the maxillary bones.

BRAYL, a piece of leather ſlit to put upon the hawk's wing to tie it up.

BREAD FOR HORSES: horſes are ſometimes fed with bread, to hearten and ſtrengthen them: the way to make the ſame, is twofold.

1. Take wheat-meal, oat-meal, and beans, all ground very ſmall, of each a peck; aniſe-ſeed, four ounces; gentian, and fenugreek, of each an ounce; liquorice, two ounces; all beaten into fine powder, and ſearſed well; to which add the whites of twenty new laid eggs, all well beat, and as much ſtrong ale as will knead it up: then make your loaves, like to houſe-bread, but not too thick; and let them be well baked, but not burnt; then give it him, not too new; and let him have it five or ſix mornings together, without any provender.

2. Take of wheat-meal, rye-meal, beans and oat-meal, of each half a peck, ground very ſmall; aniſe-ſeed and liquorice, an ounce of each; and white ſugar-candy, four ounces: beat all into fine powder, with the whites and yolks of twenty new-laid eggs, well beaten; and put to them as much white-wine as will knead it into a paſte; which then make into great loaves, and bake them well: and when two or three days old give him to eat thereof, but chip away the outſide.

For race-horſes, there are three ſorts of bread uſed; given ſucceſſively, for the ſecond, third and fourth fortnights feeding. 1. Take three pecks of clean beans, and one peck of fine wheat; mix them together, and grind them into pure meal; that done, bolt it pretty fine, and knead it up with good ſtore of freſh barm, but with as little water as may be: labour it well in a trough, break and cover it warm, that it may ſwell: then knead it over again, and mould it into large loaves, in order to be well baked. When they are drawn from the oven, turn the bottoms upward, and let them cool: at three days old you may give your horſe this bread, but no ſooner; as nothing is more apt to ſurfeit than new bread. Or you may

2. Take two pecks of clean beans, with two pecks of fine wheat, and grind them well together; then bolt, and knead it with barm, or lightening, and make it up as you did the former bread. With this bread, having the cruſt cut quite away, and oats, or ſplit beans, mingled together, or ſeparately if you think fit, feed the horſe as before, at his uſual meals. Or,

3. Take three pecks of fine wheat, and one peck of beans; grind, and bolt them through the fineſt bolter you can get; then knead it up with new ſtrong ale and barm, beat together, and the whites of twenty eggs, or more, and no water at all; but inſtead thereof a ſmall quantity of new milk: at laſt work it up, bake and order it as the former: and with this bread, having the

cruſt

cruſt cut off, adding clean oats and ſplit beans, all mixed, or ſeparate, feed your horſe at his ordinary feeding-times as you did in the fortnight before.

BREAK; to break a horſe in trotting, is to make him light upon the hand by trotting, in order to make him fit for a gallop. To break a horſe for hunting, is to ſupple him, to make him take the habit of running.

BREAKING COLTS, Mr. LAWRENCE ſays, has not that attention among us, which its importance demands. There is a general want of well-qualified men in this way, as well as of good farriers. Our chance-medley breeders either break their horſes themſelves, or commit it to perſons equally ignorant; whence the number of our *Garrons*, the breed and education of which are ſo well matched.

I have already given divers hints on this part of the ſubject, and once more repeat my advice of teaching the colt a good canter. If it ſhould be held proper to learn him to leap the bar, care muſt be taken that he be not ſuffered to do it with a heavy weight, which may, in an inſtant, let down his tender ſinews. It by no means injures a colt, of ſize and bone, to put a collar upon him, provided the draft be light and eaſy; for inſtance, plowing light ſands; his knowing how to draw, may be of after uſe and profit.

The utmoſt care ſhould be uſed to teach a colt his paces *diſtinctly*. You will obſerve numbers of horſes, trained and ridden by little farmers and countrymen, which confuſe and jumble the paces one into the other, ſhuffling between walk and trot, and trot and gallop, till they acquire a kind of racking pace, from which it is no eaſy taſk to reclaim them: or they will, perhaps, do one pace only. If the colt be unfavourably made forward, and it appear from the mal-conformation of his neck, and the ill ſetting on of his head, that he can never have a handſome carriage, double care muſt be taken to give him a well-tempered mouth, the only thing which can poſſibly render a horſe, of this unfortunate deſcription, tolerable.

Such as ſhew much blood, or ſtoop forward, and lounge in their gait, in the uſual manner of bred cattle, ought to be well ſet upon their haunches.

The future goodneſs and value of the nag materially depend upon early tuition. If he be defective in bending his knees, let him be ridden daily in rough and ſtony roads; or if that fail, cauſe him to be ridden every day, for a month, or more, with blinds. Being blinded, he will naturally lift up his feet. I have experienced the uſe of it.

When a colt is refractory, it is uſual to tame him, by riding him immoderately over deep earth. It is a ſilly cuſtom, and often productive of great miſchiefs, by weakening the tender joints of a young horſe, breaking his ſpirit, or rendering it totally deſperate. Coolneſs and perſeverance are here the requiſites; there is no horſe with a ſtomach ſo proud, which a level courſe will not bring down.

The moſt proper period for breaking a ſaddle-colt, is the uſual one, when three years old. In the common mode of performing this premier act of horſemanſhip, there is very little variation ſince BARET's days; or rather, it may be ſaid, we have univerſally adopted his improved method. A head-ſtall is put upon the colt, and a caverſane over his noſe (from the old Italian word, *cavazzana*, Engliſhed, by BLUNDEVILLE, cavetſan, or head-ſtraine) with reins. He is ſaddled, then led forth with a long rein, and, in due time, lunged, or led around a ring, upon ſome ſoft ground. As ſoon as he has become tolerably quiet, he is mounted, a proper mouth and carriage given, and his paces taught. When ſufficiently inſtructed, he ought (in general) to be diſmiſſed, until the following ſpring; an early period for ſerious buſineſs.

There are ſome, who chooſe to defer breaking their colts until four years old, for which they often find juſt cauſe of repentance, in the ſtrength and ſtubbornneſs of the horſe; ſuch practice would, however, be at leaſt ſomewhat more ſafe, if a favourite method of mine were adopted, which is, to accuſtom colts to handling, to the halter and the bitt, immediately upon their weaning. For more, *ſee* BACKING.

BREAKING HERD, *among Sportſmen*, denotes a deer's quitting a herd, and running by itſelf. In which ſenſe the word ſtands oppoſed to herding. A deer, when cloſely purſued, is loth to break herd. When a hart breaks herd, and draws to the thickets and coverts, he is ſaid to harbour or take hold.

BREAKING UP A DEER, is the opening or cutting it up.

BREAM, is of two kinds; the one a ſalt, and the other a freſh-water fiſh, but are very little different from each other, either as to taſte, ſhape, or nature.

The bream is a very broad ſhaped fiſh, and thick, ſcaled excellently, large eyes, a little ſucking mouth, diſproportionate to his body, and a forked tail.

It is a luſty, ſtrong fiſh, ſo that you muſt be ſure to have good tackling.

It hath two ſets of teeth, is a very great breeder; the melter having two large melts, and the ſpawner as many bags of ſpawn.

That which I ſhall chiefly treat of, ſhall be the freſh-water bream; which at full growth is large, breeding either in ponds or rivers, but principally delighting in the former; which if he likes, he will not only grow exceeding fat, and fairer in them than in rivers, but will fill the pond with his iſſue, even to the ſtarving of the other fiſh.

They ſpawn in *June*, or the beginning of *July*; and are great lovers of red worms, eſpecially ſuch as are to be found at the root of a great dock, and lie wrapt up in a round clew: alſo flag-worms, waſps, green flies, and graſhoppers (whoſe legs muſt be cut off), and paſte; of which there are many ſorts which are found very good baits for him, but the beſt are made of brown bread and honey; gentles, young waſps, and red worms. The beſt ſeaſon of angling for him is from St. *James*'s day until *Bartholomew* tide. For

BREAM FISHING, with hook and line, obſerve theſe directions; which will alſo be of uſe in carp-fiſhing.

Procure about a quart of large red worms, put them into freſh moſs, well waſhed and dried, every three or four days; feeding them with fat mould and chopped fennel,

ſennel, and they will be thoroughly ſcoured in about three weeks.

Let your lines be ſilk and hair; but all ſilk is the beſt: let your float be either ſwan quills or gooſe quills.

Let your bait be as big a red worm as you can find, without a knot; get a pint or quart of them in an evening in garden walks, or chalky commons, after a ſhower of rain; and put them with clean moſs well waſhed and picked, and the water ſqueezed out of the moſs as dry as you can, into an earthen pot or pipkin ſet dry, and change the moſs freſh every three or four days for three weeks or a month together: then your bait will be at the beſt, for it will be clean and lively.

Having thus prepared your baits, get your tackling ready and fitted for this ſport. Take three long angling rods, and as many more ſilk, or ſilk and hair lines, and as many large ſwan or gooſe quill floats. Then take a piece of lead and faſten them to the end of your lines. Then faſten your link-hook alſo to the lead, and let there be about a foot or ten inches between the lead and the hook; but be ſure the lead be heavy enough to ſink the float or quill a little under the water, and not the quill to bear up the lead, for the lead muſt lie on the ground. Note, that your link next the hook muſt be ſmaller than the reſt of your line, if you dare adventure, for fear of taking the pike or pearch, who will aſſuredly viſit your hooks till they be taken out, as I will ſhew you afterwards, before either carp or bream will come near to bite. Note alſo, that when the worm is well baited, it will crawl up and down as far as the lead will give leave, which much enticeth the fiſh to bite without ſuſpicion.

Having thus prepared your baits, and fitted your tackling, repair to the river, and where you have ſeen them ſwim in ſkulls or ſhoals in the ſummer time in a hot afternoon, about three or four of the clock, and watch their going forth of their deep holes and returning, which you may well diſcern, for they return about four of the clock, moſt of them ſeeking food at the bottom, yet one or two will lie on the top of the water, rolling or tumbling themſelves whilſt the reſt are under him at the bottom, and ſo you ſhall perceive him to keep centinel; then mark where he plays moſt and ſtays longeſt, which commonly is the broadeſt and deepeſt place of the river, and there, or near thereabouts, at a clear bottom, and a convenient landing-place, take one of your angles ready fitted as aforeſaid, and ſound the bottom, which ſhould be about eight or ten feet deep, two yards from the bank is beſt. Then conſider with yourſelf whether that water will riſe or fall by the next morning, by reaſon of any water-mills near, and according to your diſcretion take the depth of the place, where you mean after to caſt your ground-bait, and to fiſh, to half an inch; that the lead lying on or near the ground-bait, the top of the float may only appear upright half an inch above the water.

Thus you having found and fitted for the place and depth thereof, then go home and prepare your ground-bait, which is next to the fruit of your labours, to be regarded.

The Ground Bait.

Take a peck, or a peck and a half, according to the greatneſs of the ſtream and deepneſs of the water where you mean to angle, of ſweet groſs-ground barley-malt, and boil in a kettle, one or two warms is enough; then ſtrain it through a bag into a tub, the liquor whereof hath often done my horſe much good; and when the bag and malt is near cold, take it down to the water-ſide about eight or nine of the clock in the evening, and not before; caſt in two parts of your ground-bait, ſqueezed hard between both your hands, it will ſink preſently to the bottom, and be ſure it may reſt in the very place you mean to angle; if the ſtream run hard, or move a little, caſt your malt in handfuls a little the higher, upwards the ſtream. You may between your hands cloſe the malt ſo faſt in handfuls, that the water will hardly part it with the fall.

Your ground thus baited and tackling fitted, leave your bag with the reſt of your tackling and ground-bait near the ſporting-place all night, and in the morning about three or four of the clock viſit the water-ſide, but not too near, for they have a cunning watchman, and are watchful themſelves too.

Then gently take one of your three rods, and bait your hook, caſting it over your ground bait, and gently and ſecretly draw it to you till the lead reſts about the middle of the ground-bait.

Then take a ſecond rod and caſt in about a yard above, and your third a yard below the firſt rod, and ſtay the rods in the ground, but go yourſelf ſo far from the water-ſide, that you perceive nothing but the tops of the floats, which you muſt watch moſt diligently; then when you have a bite, you ſhould perceive the top of your float to ſink ſuddenly into the water; yet nevertheleſs be not too haſty to run to your rods, until you ſee that the line goes clear away, then creep to the water-ſide, and give as much line as poſſibly you can: if it be a good carp or bream, they will go to the farther ſide of the river, then ſtrike gently, and hold your rod at a bent a little while; but if you both pull together you are ſure to loſe your game, for either your line or hook, or hold will break; and after you have overcome them, they will make noble ſport, and are very ſhy to be landed. The carp is far ſtronger and more mettleſome than the bream.

Much more is to be obſerved in this kind of fiſh and fiſhing, but it is far fitter for experience and diſcourſe than paper. Only thus much is neceſſary for you to know, and to be mindful and careful of, that if the pike or pearch do breed in the river, they will be ſure to bite firſt, and muſt be taken. And for the moſt part they are very large, and will repair to your ground-bait, not that they will eat of it, but will feed and ſport themſelves amongſt the young fry that gather about and hover over the bait.

The way to diſcern the pike and to take him, if you miſtruſt your bream hook, for I have taken a pike a yard long ſeveral times at my bream hooks, and ſometimes he hath had the luck to ſhare my line, may be thus:

Take a ſmall blake, or roach, or gudgeon, and bait it, and ſet it alive among your rods two feet deep from the cork, with a little red worm on the point of the hook: then take a few crumbs of white bread, or ſome of the ground bait, and ſprinkle it gently amongſt your rods. If the pike be there, then the little fiſh will ſkip out of the water at his appearance, but the live-ſet bait is ſure to be taken.

Thus continue your ſport from four in the morning till eight, and if it be a gloomy windy day, they will bite all day long. But this is too long to ſtand to your rods at one place, and it will ſpoil your evening ſport that day, which is this:

About four of the clock in the afternoon repair to your baited place, and as ſoon as you come to the water ſide, caſt in one half of the reſt of your ground-bait, and ſtand off: then whilſt the fiſh are gathering together, for there they will moſt certainly come for their ſupper, you may take a pipe of tobacco, and then in with your three rods as in the morning: you will find excellent ſport that evening till eight of the clock; then caſt in the reſidue of your ground-bait, and next morning by four of the clock viſit them again for four hours, which is the beſt ſport of all; and after that, let them reſt till you and your friends have a mind to more ſport.

From St. *James*'s-tide until *Bartholomew*-tide is the beſt; when they have had all the ſummer's food, they are the fatteſt.

Obſerve laſtly, that after three or four days fiſhing together, your game will be ſhy and wary, and you ſhall hardly get a bite or two at a baiting; then your only way is to deſiſt from your ſport about two or three days; in the mean time, on the place you late baited, and intended to bait, you ſhall take a turf of green, but ſhort graſs, as big, or bigger, than a round trencher: to the top of this turf, on the green ſide, you ſhall with a needle and green thread faſten one by one as many little red worms as will nearly cover all the turf: then take a round board or trencher, make a hole in the middle thereof, and through the turf, placed on the board or trencher, with a ſtring or cord as long as is fitting, tied to a pole, let it down to the bottom of the water, for the fiſh to feed upon without diſturbance about two or three days; and after that you have drawn it away, you may enjoy your former recreation.

BREAST of a horſe. *See* COUNTER.

BREASTS, part of the bow of a ſaddle. *See* Bows.

BREAST-PAIN, IN HORSES, is a diſtemper proceeding from a ſuperfluity of blood and other groſs humours, which, being diſſolved by ſome extreme and diſorderly heat, reſort downward to the breaſts, and pain them extremely.

The ſigns of the breaſt-pain are, a ſtiff, ſtaggering, and weak going with his fore-legs, beſides that, he can hardly, if at all, bow his head to the ground. To cure which, let blood in both the breaſt-veins, taking away at leaſt two quarts; then chafe his breaſt and fore body with oil of Peter, that the blood may be drawn into the veins, and ſo eaſe the vital parts of their oppreſſion. After this, give him a pint of warm white-wine with two ounces of diapente; or, if the pain continues, which is very rare, you may rowel him.

BREAST-PLATE, is the ſtrap of leather that runs from one ſide of the ſaddle to the other, over the horſe's breaſt, in order to keep the ſaddle tight, and hinder it from ſliding backward when the horſe goes upon a riſing ground.

BREATH, OR WIND. This word ſignifies ſometimes the eaſy reſpiration of a horſe, and ſometimes it implies the eaſe and reſt or repoſe of a horſe.

As, give your horſe breath, do not ride him down: give that leaping horſe a long breathing time between the turns or repetitions of his manage.

This barb has always held his wind equally upon his manage.

This horſe is maſter of his wind or breath. This laſt expreſſion is applied to horſes that ſnort, and our jockies take ſnorting for a ſign of a long-winded horſe. *See* SNORT.

BREED, is a place where mares for breed, and ſtallions are kept, in order to raiſe a ſtud. Hence they ſay,

To keep a breed; to govern and manage a breed.

All the mares in this breed have taken; *i. e.* they are with foal.

To make a good breed, you cannot chuſe a better ſtallion than a *Spaniſh* horſe, nor better ſtud mares than *Naples* mares.

BREEDING OF HORSES. In order to the raiſing a good and beautiful race of horſes, it is neceſſary to chuſe for a ſtallion a fine barb, free from hereditary infirmities, ſuch as weak eyes, bad feet, ſpavins, purfineſs, cheſt foundring, *&c.* only with this diſtinction, that defects which happen by accident, are not to be accounted hereditary.

Having provided yourſelf with a ſtallion, let him be fed for three months before he is to cover the mare, with ſound oats, peas, or beans, or with coarſe bread and a little hay, but a good quantity of wheat ſtraw; leading him out twice a day to water; and after he has drank, walk him up and down for an hour; but not ſo as to make him ſweat.

If he is not thus put into heart before he covers, he would be in great danger of being purſey and broken winded, neither would he be able to perform the taſk; or at the beſt the colts would be but pitiful and weak; and notwithſtanding you have thus fed him well, you will take him in again very lean.

If you put him to too many mares, he will not ſerve long, his mane and tail will fall off through poverty, and you will find it a difficult taſk to recover him again for the year following.

Therefore let him have mares, but according to his ſtrength, that is, twelve, fifteen, or at moſt twenty.

Mares go with foal eleven months, and as many days as they are years old: as for example, a mare of ten years old will carry her foal eleven months, and ten days; ſo that a perſon may ſo order his mares to be covered, that their foals may be brought forth at a time when there will be plenty of graſs.

About the end of *May* put your mares into an inclоſure capable of feeding them the whole time the ſtallion

lion is to be with them, or that they are in ſeaſon, in which incloſure all the mares are to be put together, as well thoſe which are barren as others.

Firſt take off your ſtallion's hind ſhoes, but let his fore ſhoes remain on for the preſervation of his feet, then lead him forth, and let him cover a mare twice in hand to render him more calm and gentle; after which take off his bridle and turn him looſe to the reſt, with whom he will become ſo familiar, and treat them ſo kindly, that at laſt they will make love to him; ſo that not one of them will be horſed but as they are in ſeaſon.

In this incloſure there ſhould be built a little lodge, into which the ſtallion may retire to ſecure himſelf from the ſcorching heats; and in the lodge there ſhould be a manger, to give him oats, peas, ſplit beans, bread, or whatever elſe he likes beſt; and he muſt be thus entertained during the whole time he is with the mares, which will be about ſix or ſeven weeks.

You muſt likewiſe take care that the ſtallion and the mare have the ſame food, *viz.* if the former be at hay and oats, which is commonly called hard meat, the latter ſhould likewiſe be at hard meat; otherwiſe ſhe will not ſo readily hold.

Mares which are very groſs, hold with much difficulty; but thoſe that are indifferently fat and plump, conceive with greateſt eaſe.

To bring a mare in ſeaſon, and make her retain, let her eat for eight days before ſhe is brought to the horſe, about two quarts of hemp ſeed in the morning, and as much at night.

If ſhe refuſe it, mix it with a little bran or oats, and if the ſtallion eats alſo of it, it will contribute much to generation.

As for the age of the ſtallion, he ſhould not cover before he is ſix years old, nor after he is fifteen; but the laſt may be regulated according to his ſtrength and vigour.

As for the mares they ſhould not be covered before they are three years old; but in this reſpect you may take meaſures from the goodneſs of the mares, and the foals that they bring forth.

In the laſt place, you may furniſh yourſelf with young breeding mares from your own race; which being ſound, of a good breed, will bring forth more beautiful foals than any other. But you are not to make uſe of your colts for ſtallions; becauſe they will much degenerate from the goodneſs of the true barbs, and at laſt become like the natural race of the country.

It is therefore adviſeable never to chuſe a ſtallion from your own breed; but rather to change him for a good barb or *Spaniſh* horſe, yet ſtill make choice of the fineſt mares of your own ſtock to breed upon.

BRIDLE, is ſo termed when all its appurtenances are fixed together in the ſeveral parts of it for the government of a horſe, and they are theſe: 1. The bitt or ſnaffle, which is the iron-work put into a horſe's mouth, of which there are ſeveral ſorts, which ſee under the Article BITT.

2. The head-ſtall, being two ſmall leathers that come from the top of the head to the rings of the bitt.

3. Fillet, that which lies over the forehead under the foretop, if the horſe has trappings; this is uſually adorned with a roſe, or the like, or leather ſet with ſtuds, or braided.

4. The throat band, being that leather which is buttoned from the head band under the throat.

5. Reins, the long thong of leather that comes from the rings of the bitt, and being caſt over the horſe's head, the rider holds them in his hands, whereby he guides the horſe as he pleaſes.

6. The button and loop at the end of the reins, by which it is faſtened to the ring of the bitt, the other end of the reins having only a button ſo large that it cannot go through the ring of the bitt on the other ſide; this is called a running rein, by which a horſe is led at a good diſtance, and has liberty to leap a ditch, or mount a hedge.

7. The noſe band, a leather that goes over the middle of the noſe, and through the loops at the back of the head-ſtall, and ſo buckled under the cheeks; this is uſually adorned.

8. A trench.

9. A caveſan, being a falſe rein to hold or lead a horſe by.

10. A martingal, which is a thong of leather, the one end faſtened under the horſe's cheeks, and the other to his girth between his legs, to make him rein well to caſt up his head.

11. Chaff-halter; a woman's bridle is the ſame, only it is double reined.

Our bridles, at preſent, are either CURBS, double and ſingle, or SNAFFLES, either ſingle, or accompanied with a CHECK-CORD and rein; the reins either brown or black leather, quite plain, the headſtall without a noſe-band, or any ornament of ribband in front.

The curb-chain, and its application, is well known. The double bridle has two bitts, ſnaffle and curb; the latter with checks moderately long, light, and thin, and with a joint, like the ſnaffle, or whole, and known by ſeveral names, according to its form and effect.

The uſe of a CURB-BRIDLE, which, indeed, is generally the moſt proper for road ſervice, is to bring the horſe's head in, to lift up his fore-quarters, and ſet him ſufficiently on his haunches. This, of courſe, contributes to his going light in hand, and ſafely above the ground. The curb is to be uſed in thoſe two paces, where ſtride is to be repreſſed, to wit, the trot and canter; in the walk and gallop, where a horſe cannot lunge out too far, the ſnaffle is ever the moſt fitting.

The proper way to ride with the curb bridle, is to hold both reins together, at diſcretion, curbing the horſe no more than is abſolutely neceſſary; for which reaſon, the ſingle curb-rein, with which the horſe's mouth finds no favour, is an unfair and fooliſh contrivance. By being conſtantly curbed, his mouth becomes ſo caſe-hardened, that you are even where you ſet out, if you intend an improvement; relieved indeed, it is true, from the mighty trouble of holding two reins.

It is neceſſary to obſerve carefully, that the curb-chain be not faſtened above the ſnaffle-rein, and that it be

hooked ſufficiently looſe, not to preſs too ſeverely upon the horſe's mouth.

The *ſnaffle*, it is remarkable, uſed to be formerly reckoned one of their ſevereſt bitts; at preſent, it generally ſignifies a mild one; although, it is true, we have *hard and ſharp* ones for ſome horſes, the benefit of which is very problematical. The check, is a cord in the place of the curb-chain, which compreſſes the under jaw, and is intended for a hard-pulling horſe. This is chiefly in uſe upon the courſe. In ſwift action, whether it be gallop or trot, the horſe muſt have the free uſe and extenſion of his neck and head. In a gallop, the curb lifts a horſe up too much, and beſides, he cannot pull fairly and well againſt it.

Our general practice of breaking colts with large and mild bits, is highly rational; and if ſharp bits, of all kinds, were entirely excluded from our equeſtrian ſyſtem, the change, in my opinion, would be full as much in favour of our own convenience, as of the feelings of the animal. If the mouth of a horſe be already too hard, ſuch rigorous means will ſurely never contribute to ſoften it.

The *martingale*, was invented two or three centuries paſt, by EVANGELISTA, a celebrated Profeſſor of Horſemanſhip, at *Milan*. Its utility, in colt-breaking, is unqueſtionable. The running-martingale, only, is ſafe to ride with upon the road, and many people even hunt, and take their leaps with them. It is ſcarce poſſible to ride thoſe horſes without martingales (particularly in the ſummer ſeaſon) which have acquired the troubleſome habit of toſſing up the head; nor do I know of any other means to reclaim them.

The Engliſh SADDLE is highly improved within the laſt twenty or thirty years, not only in reſpect of ſymmetry, fitneſs, and beauty, but of eaſe, both to the rider and the horſe. But nothing has contributed ſo much, in the modern ſaddle, to the eaſe and convenience of the rider, as the forward projection of the pads, where the knees reſt, and the ſituation of the ſkirts, or flaps, above and below the knee. It is true, the knees are apt to be galled in a long journey, by the ſtirrup-leathers, which are now placed without the long flap; but they may be occaſionally drawn beneath it. The ſaddle is ſecured by two girths only, and thoſe placed exactly one over the other, appearing as if ſingle. The circingle is out of faſhionable uſe, except upon the turf, and ſaddle-cloths are, at preſent, laid aſide. As for the CRUPPER, nothing is deemed more unſportſmanlike and awkward; and whether from prejudice or not, I cannot help conceiting, it always detracts from the figure of the horſe. Where a horſe has a good ſhoulder, and the ſaddle fits him, a crupper is totally unneceſſary; but I cannot commend the taſte or prudence of thoſe, who, to avoid the unfaſhionable appearance of a crupper, will ſubmit to the riſk of riding upon their horſe's neck, or the trouble of diſmounting every four miles, to replace their ſaddle. If a martingale alſo ſubſiſt in this caſe, it is truly a pitiable one. When it is abſolutely neceſſary to ſubmit to be cruppered, obſerve that the ſtrap be very broad and ſoft, that it may not chafe the horſe's rump; and that a candle be ſewed up within that part which goes within the tail. For horſes that are in danger of ſlipping through their girths, it is neceſſary to provide a breaſt-plate, which is faſtened to the ſaddle.

We have had ſeveral late inventions reſpecting ſaddles, for which patents have been obtained; whoſe ſaddles, I believe, are conſtructed of whalebone, which are contrived by means of a ſcrew, to contract or dilate, ſo as to fit any horſe; but of the merits of theſe inventions, I am unable to ſpeak, from my own experience.

BRIDLE-HAND, is the horſeman's left-hand, the right-hand being the ſpear or whip-hand.

To ſwallow the BRIDLE, is ſaid of a horſe that has too wide a mouth, and too ſmall a bitt-mouth.

BRILLIANT; a briſk, high-mettled, ſtately horſe is called brilliant, as having a raiſed neck, a fine motion, excellent haunches upon which he riſes, though never ſo little put on.

To BRIM, a ſow is ſaid to brim, or go to brim, that is ready to take boar.

BRING IN A HORSE, is to keep down the noſe of a horſe that bores and toſſes his noſe up to the wind; this we do with a good ſtrong branch. *See* BANQUET *and* WIND.

BROCK, a term uſed to denote a badger.

A hart too of the third year is called a brock, or brocket; and a hind of the ſame year, a brocket's ſiſter.

BROKEN-WIND, a diſorder that a horſe is ſubject to when he is ſuffered to ſtand too long in the ſtable without exerciſe; by which means he contracts groſs and thick humours in ſuch abundance, that adhering to the hollow parts of his lungs, they ſtop his windpipe.

Mr. LAWRENCE, ſpeaking of purſiveneſs, aſthma, and broken wind, ſays they are kindred diſeaſes, or different ſtages of the ſame diſeaſe; and made the few remarks following, *viz.* "Broken wind is diſcovered by the quick and irregular heaving of the flanks, and a more than ordinary dilatation of the noſtrils; ſometimes alſo, by a conſumptive appearance of the body. But the uſual method of trying the ſoundneſs of a horſe's wind, is, to cough him; which is performed by preſſing the upper part of the wind-pipe, with the finger and thumb. The ſtrong, clear, and full tone of the cough, prove his wind to be ſound; if, on the contrary, the note be ſhort, whiſtling, and huſky, the horſe is aſthmatic, and unſound. Horſes labouring under the worſt ſtage of this diſeaſe, are ſtyled, in the language of the repoſitory, Roarers, from the noiſe they make in work, of very little of which they are capable. Broken-winded mares are generally barren, although I have heard of one, which bred a whole team of horſes, after ſhe became aſthmatic. Some penſive and thick-winded horſes, are, of all others, the ſtrongeſt, and moſt thorough-winded. They catch their wind with difficulty at firſt; but it comes more free and clear, as their action increaſes.

In addition to the ſigns of confirmed broken wind, I have frequently obſerved a palpitation at the cheſt, and a conſiderable cavity there, with conſtant contraction and dilatation; but as I have ſaid, if the horſe be cauſed to move quick, the defect cannot poſſibly be concealed.

concealed. That which conſtitutes what is called a *Roarer*, is a defect in the *trachea*, or wind-pipe, it being of irregular form, or inſufficient dimenſions to admit a free paſſage for the air. Roarers will ſometimes go with their noſes pointed ſtraight forward, and elevated.

Whoever deſires to enter into a very minute inveſtigation of the nature and cauſes of aſthmatic diſeaſes in horſes, had better conſult GIBSON, from whom moſt other writers on the ſubject have borrowed, and in general without having the honeſty to acknowledge it.

Broken-wind is no doubt an appropriate malady of the domeſtic ſtate, ſince in the natural it is unknown. I know not whether aſſes be ſubject to it; I ſuppoſe from their ſuperior hardineſs to horſes, in conſequence of leſs delicate treatment, they are not ſo open to the impreſſion of cold.

Dr. LOWER attributed the broken wind of a horſe to a relaxation, or rupture of the phrenic nerves, which cauſe the motions of the diaphragm. A friend of BARTLET, ſuppoſed the diſeaſe to proceed from a morbid or obſtructed ſtate of the glands, and membranes of the head and throat, the enlargement of which prevented a free paſſage to the wind. According to OSMER, "certain glands (called the lymphatics) which are placed upon the air-pipe, at its entrance into the lungs, are become enlarged, and thereby the diameter of the tube is leſſened; hence the received air cannot ſo readily make its eſcape, nor reſpiration be performed with ſuch facility as before; from which quantity of contained air, the lobes of the lungs are always enlarged, as may be ſeen by examining the dead carcaſes of broken-winded horſes." But I think I can beſt explain the matter in the words of Dr. DARWIN; ſpeaking of humoural aſthma, he attributes it to "a congeſtion of lymph, in the air-cells of the lungs, from defective abſorption."

In my ideas, a redundance of lymph being thrown upon the lungs, the quantity becomes too great for the capacity of the abſorbent veſſels, hence it ſtagnates and chokes up the air conduits, and the theatre of its action being more confined, of courſe reſpiration muſt be more difficult and laborious. The diſeaſe will thus be always in proportion to the obſtruction in the air-cells.

The moſt general cauſe of broken wind, lies in alternate expoſure to inordinate heat and cold.

I have often conſidered the idea of GIBSON, in reſpect to the too large ſize of the contained viſcera, in proportion to the cheſt, and the difficulty thence of expanſion to the lungs, as a cauſe of thick-windedneſs in horſes, and am very far from thinking contemptuouſly of it. Be it remembered, that purſive horſes demand a punctilious regularity in phyſic and exerciſe.

The diſeaſe may probably have ariſen from want of timely evacuation, ſo that occaſional phyſic and bleeding ſhould not be neglected. Mercurial phyſic is indicated, being powerfully deobſtruent, perhaps the ſaline courſe, from its diuretic effects, may be peculiarly uſeful in this caſe. A late writer on the aſthma, ſeems to place the whole dependance for a cure, in the almoſt total abſtinence from liquids. It would be madneſs to glut a broken-winded horſe with water, but I never ſaw ſuch take the ſmalleſt harm from a moderate proportion of it, frequently given; and perhaps the only reaſon why they are particularly greedy of drink is, becauſe it is a received notion, that they ought to be kept without it. Give as little hay as poſſible, and that of the hardeſt and beſt kind, on the ground, or in a baſket; maſhes, and an extra quantity of corn. Carrots are ſpecific in the caſe. If the patient be even but a middling cart-horſe, it will pay to keep him to this regimen, inſtead of the common garbage diet. A conſtant run in upland paſture, where the bite is not too large, ſuits theſe horſes beſt; but if once allowed this, there ſeems a neceſſity for it ever after, for if taken entirely into the ſtable again, their malady becomes intolerable. It is well known, although not always remembered, that aſthmatic horſes ſhould be put to their ſpeed by degrees, and that they are incapable of any violent extremes. Out of reſpect to the druggiſts, I ſhall ſet down a few preſcriptions.

The following is BRACKEN's ſuccedaneum for GIBSON's too expenſive balls, and even this is expenſive enough of conſcience, in proportion to the good it is like to operate, although perhaps it would be difficult to contrive a better form. It muſt be remembered, that medicines intended to open obſtructions in the lungs, have the whole tour of the circulation to make, and that they have not the power, as the farriers ſuppoſe, immediately to enter the doors of the diſeaſe, and eject the tenant.

Recipe. Half a pound cordial ball, if it be too dry, add half a pint fine Florence oil; balſam of Peru, two drachms; aniſated balſam of ſulphur, three drachms; flowers of benjamin, two drachms and half: make the maſs with burdock ſeeds in fine powder. Give a ball the ſize of a pigeon's egg, when going out to exerciſe. If burdock ſeeds cannot be obtained, I ſuppoſe liquorice powder may be ſubſtituted; but it may be worth while in a regular ſtable to make a reſerve of that ſeed, of which more hereafter.

Or, One pound cordial ball; powdered ſquills, and Barbadoes tar, two ounces each; make up the maſs with honey.

Or, Antimony in the fineſt powder, eight ounces; brimſtone powdered, four ounces; gum ammoniacum, pounded garlic, and hard ſope, each four ounces; Venice turpentine, three ounces; aniſeeds, bay berries, and linſeed, in powder, two ounces each; make the paſte with honey, and oxymel of ſquills. Give a ball daily for a month; omit a month, and then repeat, having a ſtrict care as to regimen. This is my favourite form, but I do not promiſe it ſhall cure a broken wind; I will engage, however, that it will mitigate the ſymptoms of that diſeaſe, and render the horſe more uſeful: it is alſo an excellent preventive when the danger is apprehended. Soften the ammoniacum by pouring a little vinegar upon it, letting it ſtand twelve hours; pick out any ſmall ſtones or foulneſs, and pound it by itſelf; peel the garlic, add, and pound it with the gum.

Or, A courſe of tar-water, about four times the ſtrength of the common; a quart or two given in the horſe's drink.

The

The vitriol of copper, joined with emetic tartar, has formerly ſucceeded in a few inſtances of inveterate aſthma, when every other known remedy had failed.

The caſe of pulmonary abſceſs in horſes muſt ſurely be hopeleſs, as well from the common reaſon of the difficulty of effecting union of divided parts, where inceſſant motion takes place, as the conſideration, that the conſtant labour expected from the horſes ſtill enhances the difficulty. If any remedy, it muſt be pure air in upland paſture; the patient to have no diſturbance for at leaſt twelve months. There are ſome few inſtances of a mare breeding, although evidently aſthmatic, and with a diſcharge from the noſtrils. La Fosse relates that a horſe, in the worſt ſtage of the glanders, covered a mare; and it is probable a glandered mare would breed.

BROOK HAWKING, is a ſport that is managed with the gerfalcon and jerkin, the haggard falcon, and the taſſel gentle.

There are in many places ponds encloſed with woods, buſhes, and the like obſcurities, ſo that they are concealed from paſſengers, and ſuch places ducks much reſort to.

For the training up a hawk to take them, obſerve the following directions:

The hawk being in all points ready to fly, be provided with two or three live train ducks, and let a man lie concealed in ſome buſh by the pond with them; ſo that when you come to the place, and the hawk being ready for the ſudden flight, beat the buſh where the man lies concealed with the ducks, with a pole, who muſt ſend forth one of them, to the end that the hawk may think it is put up by you, and if ſhe takes it with a courage reward her well.

This is the way to train up a goſs-hawk to catch a fowl at ſowce.

The hawk being trained to this, you may boldly go with her to the ponds where the fowl lies, and creeping cloſe to the place raiſe them by beating about with a pole, and when any riſe, let go your hawk from your fiſt, and if ſhe ſeize, let her take pleaſure thereon and reward her well.

It is very neceſſary to have a ſpaniel with you: for if the hawk is well acquainted with the ſport, ſhe will be ſo nimble at the catch, that they will fall into the water together, and by that means the fowl will go to plunge, ſo that then the ſpaniel will be of good ſervice and will not diſpleaſe the hawk.

BROOD, the young of fiſh or fowls. The brood of ſea-fiſh is ſpawned, and lies in ſtill waters, where it may have reſt to receive nouriſhment, and grow to perfection; and here it is often deſtroyed by weirs, draw-nets, or nets with canvaſs, or ſuch engines at the bottom of them, in harbours, havens and creeks.

BROOK, a little river or ſmall current of water; and is diſtinguiſhed from a river, by flowing only at particular ſeaſons, whereas a river flows at all times.

BROUILLER, is when a horſe is put to any manage, plunges, traverſes, and appears in diſorder. Hence they ſay,

This gentleman is not maſter of his legs, he makes his horſe brouiller, *i. e.* he makes him traverſe and caſt down his head, the ſpur being too hard for him.

BROW-ANTLER, that branch of a deer's horn next the head.

BRUISES of Joints in Cattle.—The cure: Anoint them with the oil of ſpike, then bind up the bruiſed or broken joint with a poultice, made of mallows, groundſel, and betony, beaten with hog's lard, and fried in it, applying it as hot as can be.

BUCK. In his firſt year, is called a fawn; the ſecond, a pricker; the third, a ſorrel; the fourth, a ſore; the fifth, a buck of the firſt head; and the ſixth, a great buck. This beaſt is common in moſt countries, being as corpulent as a hart, but in ſize reſembling more a roe, except in colour: the males have horns, which they loſe yearly; the females none at all. As for the colour, it is very different; however, they are moſtly branded and ſandy, with a black liſt all along the back. Their fleſh is excellent for nouriſhment.

BUCK HUNTING. Having under the article HART treated largely, as to their nature, and the ways of hunting them, there needs the leſs to be ſaid as to hunting the buck, and the rules for taking him; for he that can hunt a hart or ſtag well, will not hunt a buck ill.

Beſides, fallow deer being common among us, and thoſe uſually in parks and encloſures of divers ſituations and ſtatures, different from one another; it would be a difficult taſk to give inſtructions for every particular.

And indeed it is the proper buſineſs of every keeper of parks, &c. to underſtand the nature and craft of his deer in hunting; all which are to be acquired by experience more than reading; however I ſhall conciſely inform you of what relates to buck-hunting as now practiſed.

There is no ſuch ſkill and art required in lodging a buck, as in harbouring a hart or ſtag, nor ſo much drawing after, but you may judge by the view, and obſerve what grove or coppice he enters; for a buck does not wander up and down as the hart, nor change his layer ſo often, or uſe ſo many croſſings, doublings, ſhifts, and devices, nor doth he flee ſo far before the hounds, but avoids the highway and open places, as much as he can; he is not ſo crafty or ſo ſtrong to beat a river, or to ſtay ſo long at ſoil; neither is he ſo free to take a great river, nor muſt it be deep; but being cloſe hunted, he will flee into ſuch ſtrong coverts as he is accuſtomed to, and it has been obſerved, that ſome bucks that have leaped over a park pale, after a ring or two, have returned of themſelves, chuſing rather to die where they have been acquainted, than in a ſtrange place.

The buck groans and trots as the hart belleth, and with a worſe noiſe and rattling in the throat; leaps lighter at the rut than the ſtag; neither will theſe two beaſts come near one another's layer, and they have ſeldom or never any other relays, than the old hounds.

They alſo herd more than the hart does, and lie in the drieſt places, though if they are at large they herd but little from *May* to *Auguſt*.

Now

Now the greateſt ſubtlety a huntſman needs to uſe in hunting the buck, is to have a care of hunting counter or change, becauſe of the plenty of fallow deer that uſed to come more directly upon the hounds than the red deer does.

The doe begins to fawn about the end of *May*, and continues till *Midſummer*.

The bucks mew or ſhed their horns or heads every year about, or in *April*, and part of *May*, and their new ones are burniſhed about the end of *Auguſt*.

The buck makes his ſewmiſhing in divers manners and forms as the hart, according to the diverſity of food, and the time of the day, morning and evening, but they are moſt commonly round.

The buck comes in ſeaſon in *July*, and goes out in *September*.

The doe comes in ſeaſon when the buck goes out, and goes out at twelfth-tide.

In buck-hunting the ſame hounds are uſed as in running the ſtag. In foreſts and chaſes as they lie at layer, ſo they are hunted.

In parks where they are encloſed, the ſport is not ſo diverting, by reaſon of the greater change and ſoil, unleſs they break out and run the country, which they ſeldom do.

But deer that lie out, though near the park, make for the generality better chaſes than foreſt deer.

The Keeper ſhooting a BUCK *to be run down.*

In order to facilitate the chaſe, the keeper commonly ſelects a fat buck out of the herd, which he ſhoots to maim him, and then he is run down by the hounds.

As to the method of hunting the buck; the company generally go out very early for the benefit of the morning, ſometimes they have a deer ready lodged, if not, the coverts are drawn till one is rouſed; or, ſometimes in a park a deer is pitched upon, and forced from the herd, then more hounds are laid on to run the chaſe; if you come to be at a fault, the old ſtaunch hounds are only to be relied upon till you recover him again: if he be ſunk and the hounds thruſt him up, it is called an imprime, and the company all ſound a recheat; when he is run down, every one ſtrives to get in to prevent his being torn by the hounds.

Fallow deer ſeldom or never ſtand at bay.

He that firſt gets in, cries hoo-up, to give notice that he is down, and blows a death. When the company are all come in, they paunch him and reward the hounds; and generally the chief perſon of quality amongſt them takes ſay, that is, cuts his belly open, to ſee how fat he is.

When this is done, every one has a chop at his neck, and the head being cut off is ſhewn to the hounds to encourage them to run only at male deer, which they ſee by the horns, and to teach them to bite only at the head: then the company all ſtanding in a ring, one blows a ſingle death, which being done all blow a double recheat, and ſo conclude the chaſe with a general halloo of hoo-up, and depart the field to their ſeveral homes, or to the place of meeting; and the huntſman, or ſome other, hath the deer put acroſs the buttocks of his horſe, and ſo carries him home.

BULL: the male of the cow kind.

One bull ſuffices for fifty cows, ſome ſay ſixty. His beſt age is at two, or from one to three, before he arrives at full growth, when he grows heavy and ſluggiſh. Hence that old rule among countrymen:

He that will have his farm full,
Muſt have an old cock and a young bull.

From that time, being of no farther uſe in breeding, he is uſually gelt, and makes what they call a bull ſtag, in the North corruptly a bull-ſeg, to be fatted for the market. When theſe creatures are intended to breed, the better the land is, the larger ſort of beaſts are to be choſen, and the greater will be the profit. But of whatever ſort the breed is, the bull ſhould always be of the ſame country with the cow, otherwiſe it never ſucceeds ſo well. The bull ſhould be choſen of a ſharp quick countenance, with a forehead broad and curled, eyes black and large, long horns, a fleſhy neck, long and large belly, and ſmooth hair like velvet; his breaſt ſhould be large, back ſtraight and flat, buttocks ſquare, thighs round, legs ſtraight, and his joints ſhort. This ſort of bull is the fitteſt for breed, and makes the beſt oxen for draught, and likewiſe for fattening.

The cow ought to have a broad forehead, black eyes, great clean horns, the neck long and thin, the belly large and deep, the thighs thick, the legs round, and the joints ſhort; a white, large, and deep, udder, with four teats, and large feet. The ſize muſt be proportioned to the goodneſs of the land. *See* Cow.

BULL, BANNAL, denotes a bull kept by a lord, who has a right to demand all his tenants to bring their cows to be ſerved by him.

BULL AND BOAR. By the cuſtom of ſome places, the parſon is obliged to keep a bull and boar for the uſe of his pariſhioners, in conſideration of his having tythes of calves and pigs, &c.

BULL that ſheds his ſeed.—Remedy.

Get clary-leaves, dry them and pound them to powder; then take the powder of tanner's bark and brown ſugar-candy, with two pennyworth of turpentine, and work the powders and the turpentine very well into balls as big as a great walnut, and give him two at a time, night and morning, and he will mend preſently.

BULL-DOG: one of the moſt fierce and ſtrong of the canine race, having the noſe ſhort, and the underjaw longer than the upper. The breed is in a manner peculiar to England: but, ever ſince the ſavage cuſtom of bull-baiting has happily been on the decline, it has ſuffered neglect. Such is the ſtrength and ferocity of theſe animals, that four of them have been known to maſter a lion; and when they are turned looſe on a bull, and have once properly ſeized him, nothing ſhort of the loſs of life, or the giving way of the part, can diſengage them. While that barbarous amuſement continued in vogue, various inſtances of ſavage fortitude have occurred in the feats of this breed, which would ſcarcely be credited in countries where the diverſions are more rational and elegant.

BULLFINCH, a cage bird; but has neither ſong nor whiſtle of his own, but is very apt to learn if taught.

BULLHEAD,

BULLHEAD, or MILLER's THUMB; a fiſh that has a broad head, and wide mouth, with broad fins near the eyes, and has many under the belly; and inſteed of teeth, has rough lips, which aſſiſt him in nipping at the bait: he has alſo fins on his back, and one below the belly, and his tail is round, and his body all over covered with whitiſh, blackiſh, and browniſh ſpots: they begin to ſpawn about *April*, and are full of ſpawn all the ſummer ſeaſon.

The manner of fiſhing for them is as follows:

The common abode or haunt of this fiſh is in holes, among ſtones, in clear water, in ſummer; but in winter they take up their quarters with the eels in mud. They are a ſimple and lazy fiſh, and are eaſily caught in ſummer, and you may ſee him in hot weather ſunning himſelf on a flat gravelly ſtone, upon which you may put your hook, which muſt be baited with a very ſmall worm near the mouth, and he will very ſeldom refuſe the bait, ſo that the moſt bungling angler may take him. It is, indeed, an excellent fiſh for taſte; but of ſo ill a ſhape, that many women do not care to dreſs it.

BURN in a bull's pizzle, or in a cow's matrix—For a burnt bull, you muſt firſt caſt him and pull out his pizzle, then waſh both his ſheath and that with white-wine vinegar; then take the juice of houſeleek, burnt allum, honey, and the juice of lettuce; blend all together, and anoint the bull's pizzle about three times, and he will mend.

And, for the cow, you may waſh and anoint her bearing, and ſhe will mend.

BURNISH: deer are ſaid to burniſh their heads, when rubbing off a white downy ſkin from their horns againſt a tree: they thruſt them, as is ſaid, into a reddiſh earth, to give them a new colour and luſtre.

BURR, the round knob of a horn next a deer's head.

BURROCK, is a ſmall weir or dam, where wheels are laid in a river for taking of fiſh.

BURROWS, holes in a warren which ſerve as a covert for hares, rabbets, *&c.*

BUSTARD, a kind of great ſluggiſh fowl.

BUTTERS, is an inſtrument of ſteel, fitted to a wooden handle, with which they pare the foot, or cut the hoof of a horſe.

BUTTON, of the reins of a bridle in a ring of leather with the reins paſſed through it, which runs all along the length of the reins. To put a horſe under the button is, when a horſe is ſtopped without a rider upon his back, the reins being laid on his neck, and the buttons lowered ſo faſt down, that the reins bring in the horſe's head, and fix it to the true poſture of carriage. It is not only the horſes which are managed in the hand, that muſt be put under the button, for the method muſt be taken with ſuch horſes, before they are backed.

CAD-BAIT, a worm, good bait for trout.

CADDOW, a bird, otherwiſe called a chough, or jack-daw.

CADENCE, is an equal meaſure or proportion, obſerved by a horſe in all his motions, when he is thoroughly managed, and works juſtly at gallop, *terra a terra*, and the airs: ſo that his times or motions have an equal regard to one another: that one does not embrace, or take in more ground than another, and that the horſe obſerves the ground regularly.

Horſemen ſay, This horſe works always upon the ſame cadence; he follows the cadence; he does not change his cadence; he remains equally between the two heels.

He is fine and gentle in all his aids; and when put to the manage, he never interrupts his cadence.

This horſe has ſo fine a mouth, and works with ſo much liberty in his ſhoulders and haunches, that he keeps his cadence with great facility: nay, he takes a very good cadence upon his airs, without ſtepping falſe, without jumbling, and works equally in both hands. *See* COUNTER-TIME and TIME.

CADEW, the ſtraw-worm, an inſect uſed as a bait in angling.

CADGE, a round frame of wood, upon which falconers carry their hawks.

CAGE FOR PARTRIDGES; a device to keep them in, and of which there are ſeveral ſorts.

We ſhall begin with that invented to contain a hen partridge, and ſerves to call cock partridges to her in order to take them. *See* Plate III. Fig. 2.

This cage is pretty enough, takes up but little room, is very portable, and is little ſeen: 'tis made of an old hat, whoſe brim is cut of, and the bottom is wood, which ſhuts and opens, to put in and take out the partridge; and a hole muſt be made in the bottom of the hat, which is uppermoſt, through which the bird puts out its head to call.

You have alſo a hook at it, made of a thick iron wire, to hang the cage upon as there is occaſion; and you muſt make one or two at the place marked V, to the end the bird may eat and drink; and therefore a piece of wood is faſtened or nailed at the door below, of about half a foot in length, pointed at the ends, in order to fix it in the ground, that ſo the cage may be kept in good order when you have a mind to uſe it.

This ſort of cage is very proper for the purpoſe deſigned.

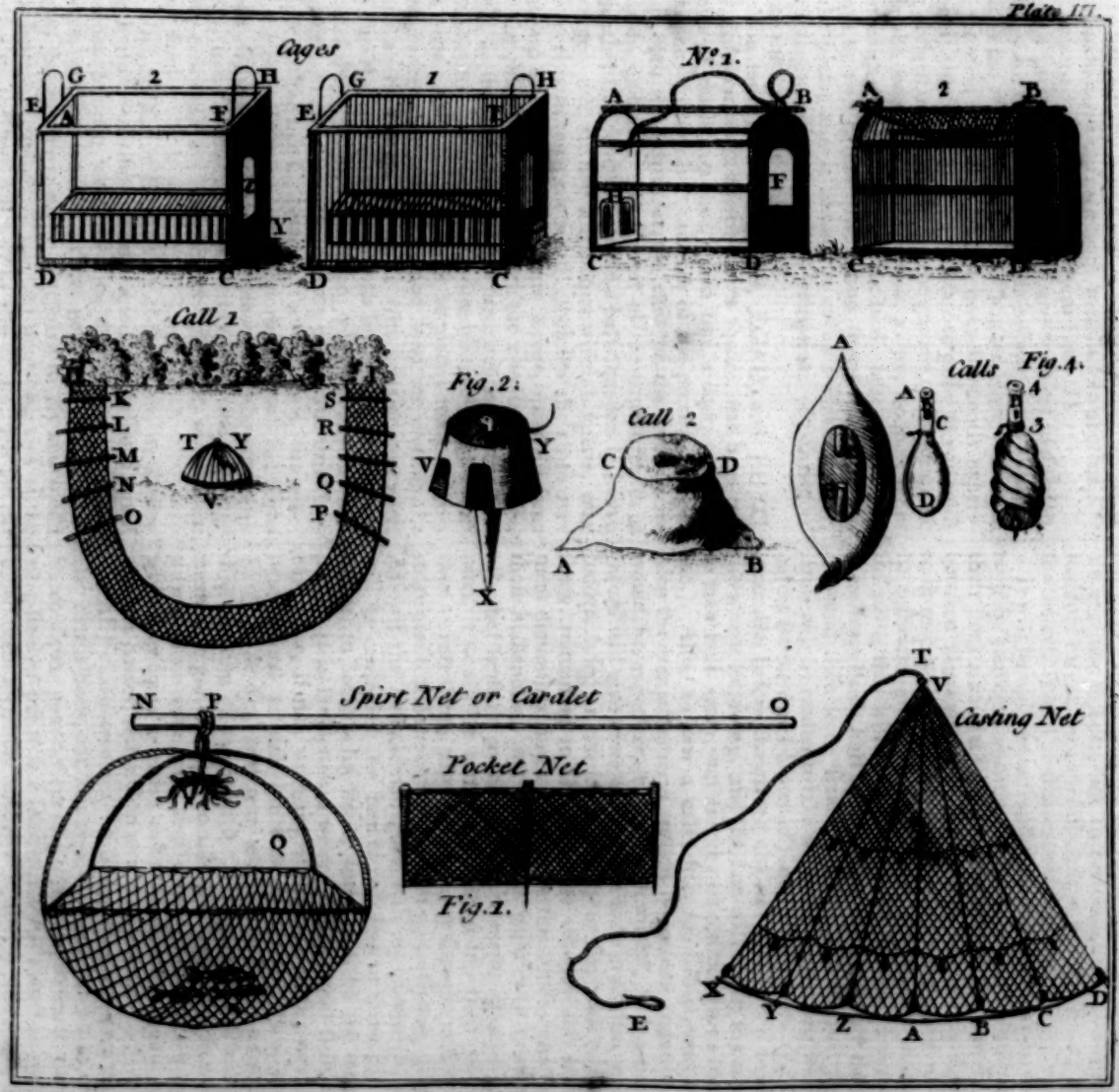
And yet you keep the partridge in it only when you carry it to call: for in the day-time you are to keep them in a great cage, or room.

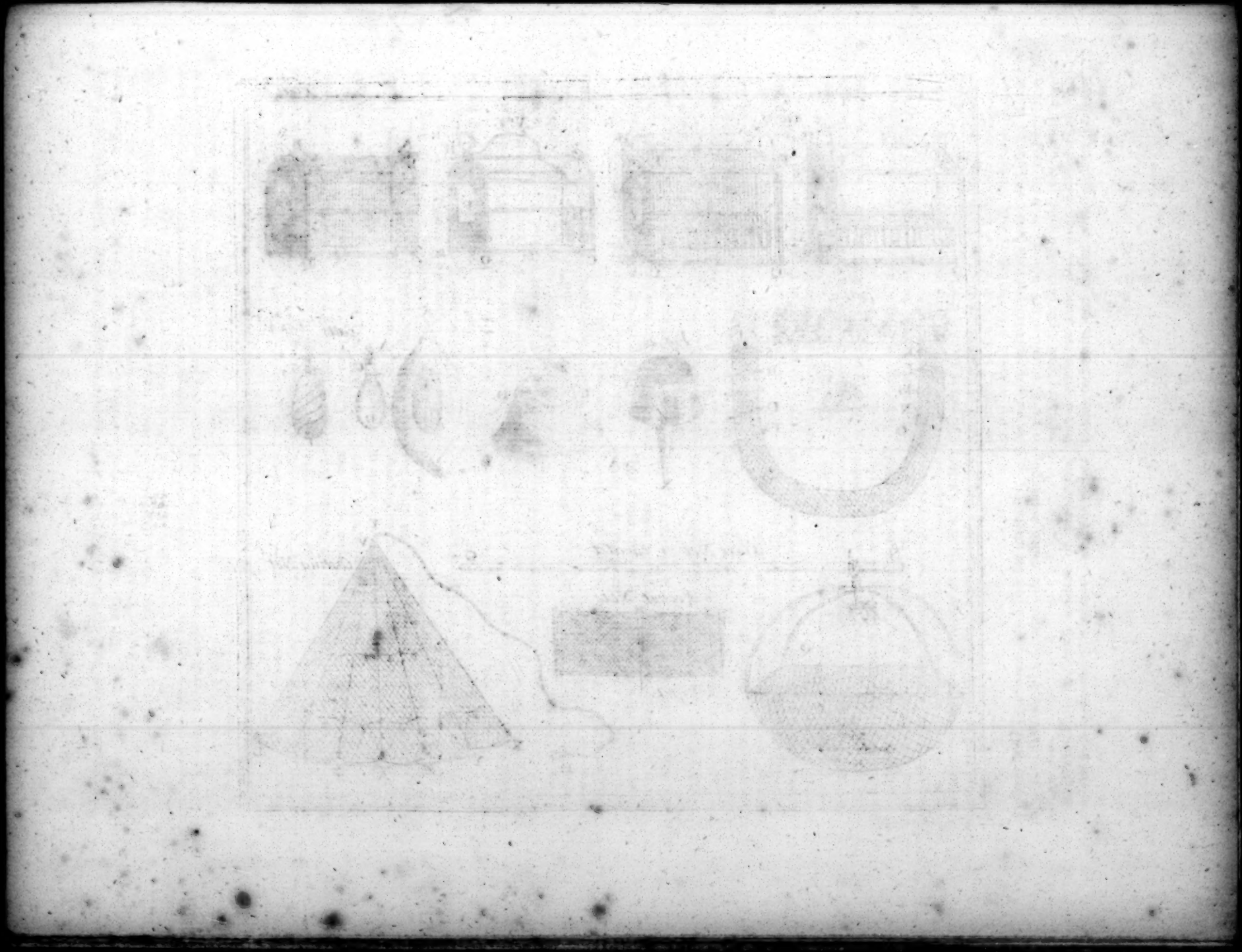
The following figures repreſent other ſorts of cages; and the moſt common is that we are about to deſcribe next, and may in ſhort ſerve for a model to make others by.

The cage is made of two pieces of the bottom of a caſk, marked with the letters AHC, and BGD, cut round at the top, AB.

They ſhould be nine inches long, and a foot broad; they faſten them at the lower part to another piece of wood of the ſame breadth, and fifteen or eighteen inches in length: you have a laſh, or ſmall wooden ligature at top, marked with the letters AB, fifteen or eighteen inches long, and half an inch broad, and thick; which is nailed to two round boards, in order to keep them together: you muſt cover the void part of the cage with a green, or ſome dark grey-coloured cloth, inclining to brown, and tacked with ſmall nails: leave

two


Cages
No. 1.
Call 1
Fig. 2.
Call 2
Calls Fig. 4.
Spirt Net or Caralet
Pocket Net
Fig. 1.
Casting Net



two or three holes at top, for the partridge to put her head through, when ſhe has a mind to call or hearken.

A little door muſt be made at F, one of the end boards; for example, at that marked with No. I. that you may put in, and take out the birds: you muſt make two openings in the other board, as you ſee repreſented by the letter H, they muſt be long and narrow, that the partridge may be able to eat and drink: you muſt faſten a thong, girth, or cord, to the ends AB, and put the ſame about your neck, when you have a mind to carry the cage from one place to another.

You may obſerve the reſt from Plate III.

We preſent you next with another very uſeful ſort of cage for the bird, when wild, becauſe ſhe will ſtruggle in the carriage, and be ſo fatigued when you come to the deſigned place (as has been frequently experienced) that ſhe will not vouchſafe to call: ſo you muſt be obliged to ſet the cage on the ground, in order to uſe her the next morning; becauſe a fox, or ſome other voracious animal, may kill the bird: here is a cage ſet forth by two figures; the ſecond ſhews you the particular parts; and it is not yet covered with iron wire, as it ought to be when it is compleat: you therefore ake the model by it.

You muſt take two boards, EGAD, and FHYC, each of them about fifteen inches ſquare, and have two bows of thick iron wire, made like a door, or rather like the two boards at the ends of the preceding cage; nail both the boards at the ends of the two ſquare boards, and fix a board over, of the ſame breadth as the other two, and a foot and a half ſquare; in ſuch a manner, that the ſide of the bows which is ſquare, may be level with the great board; then ſew the cloth over the two bows, in order to form a cage, quite the ſame as the ſecond above; between the two boards, A K, B Y, ſo that the three boards are extended quite round about, three or four fingers breadth over; and pieces of wood, as at G H E F, muſt be placed at all the corners to keep the ſides tight, and bind the cloth in the middle; then cover the whole with braſs or iron wire, of the thickneſs of a common little pin; and to accommodate your bird with food, you muſt have a ſmall drawer, or little trough, with an eating and drinking-place, at the ſide C, between the cage and iron wire, at the little letter *a*; and therefore that cloth ſide of the cage adjoining to the feeding-place, muſt be open with bars, ſo diſtanced from each other, that the partridge may eaſily put her head between them in order to eat and drink.

CALADE, or BASSE: is the deſcent, or ſloping declivity of a riſing manage ground; being a ſmall eminence, upon which we ride down a horſe ſeveral times, putting him to a ſhort gallop, with his forehams in the air, to make him learn to ply and blend his haunches, and form his ſtop upon the aids of the calves of the legs, the ſtay of the bridle, and the caveſſon, ſeaſonably given: for without thoſe aids he would throw himſelf too much upon his ſhoulders, and not bend his haunches.

Horſemen ſay, Work your horſe in a calade, after the *Italian* way; ride him ſtraight, and then you make good uſe of the calade.

Theſe calades will diſcourage your horſe, and perhaps ruin his hams; for you have pitched upon too deep a declivity: and beſides, you do not make the aids of the bridle accord with thoſe of the calves of your legs.

CALF; the young of the cow kind, an animal too well known to require a particular deſcription.

To breed calves to make young bulls, take no one that was calved within the prime, which is counted five days after the change of the moon; for then they are not good to keep, but to eat or to ſell. Among a hundred calves, two are ſufficient to keep for bulls; as for the reſt, it will be beſt to geld them.

It will be well for huſbandmen to rear as many calves as they can conveniently keep, in order to maintain their ſtock; and let theſe chiefly be thoſe that may fall between *Candlemas* and *May*, for in that ſeaſon their milk may be beſt ſpared, and by that time there will be ſufficient graſs to wean them, and by the winter following they will have ſtrength ſufficient to preſerve them from being hurt among other cattle, if they have now and then ſome ſmall help; and alſo by *June* the dams will be readier to take the bull, and to bring other calves in the times aforeſaid; and, if a cow tarry till after *May* before ſhe calves, the calf will be too weak the winter following, and the dam will not be ſo ready to take bull again, but thereby oftentimes grows barren. Alſo, to rear a calf after *Michaelmas*, and to keep the dam at her meat, as they do in ſome countries, would be expenſive in the winter-time; and a cow abroad will give more milk with a little graſs than with fodder, lying in the cloſe houſe, or fed with hay or ſtraw, remaining in the ſtall; for the dry and hard meat diminiſhes much more milk than graſs. As for thoſe huſbandmen that have ſmall paſtures or none at all, they muſt do as they pleaſe; though, in my opinion, it would be better for them to ſell their calves than to rear them, whereby they may ſave the milk for more profit, and the cow will rather go to the bull again. Alſo, if the huſbandman goes with an ox-plough, it will be convenient for him to raiſe two or three cow-calves, to hold up his ſtock, and it will be the more profit; it is far better to wean calves at graſs than at hard meat, if they were at graſs before: thoſe that can have ſeveral paſtures for their kine and calves, are likely to do well, and rear with leſs coſt than others. The weaning of calves with hay and water will make them have great bellies, becauſe they do not ſtir ſo well therewith as with graſs, and they will the rather rot when they come to graſs; and in winter they ſhould be put into houſes, rather than to remain abroad.

CALF that ſcowereth—Take a pint of verjuice, and clay that is burnt till it is red, or very-well burnt tobacco pipes, pound them to powder, and ſearſe them very finely; put to it a little powder of charcoal, then blend them together, and give it to the calf, and he may be expected to mend in a night's time.

CALF, to cut, the method is—Cauſe one to hold down his fore-part, then bind his hinder feet with ſome cord, half a yard aſunder, alſo let his fore-feet be bound, and let the ſaid holder ſet both his knees on the calf, nigh to his legs, and ſo cut him gently, and

anoint his flanks with freſh greaſe; then rub his reins with ſome cold water mixed with ſalt, and he will do well. Some geld their calves when they are young, and others let them run a year, or more, before they geld them, which is counted more dangerous. After they are gelt, keep them in good paſtures, that they may be the readier and ſtronger to labour at three years. Alſo, if the calves be not gelded within one year, they will prove great. If there grows any impoſthume after the gelding, burn his ſtones to aſhes, and caſt the powder thereon, and it will help him. Some are more aſtrologically given to obſerve ſeaſons and planets, when the moon is in the decreaſe, and the ſign from the place: in ſpaying, gelding, cutting, or letting blood, theſe ſigns are moſt dangerous, if the moon have power over them, as Taurus, Leo, Gemini, Virgo, and the latter part of Libra and Scorpio; alſo the two ſigns governed under Saturn, as, Capricorn and Aquarius; the reſt are all good, as Aries, Cancer, Sagitarius, and Piſces; be ſure, alſo, that the moon is not in them.

CALF, (among Hunters) a male hart or hind of the firſt year.

CALKINS, a ſort of horſe-ſhoes for froſty weather, and are apt to make horſes tread altogether upon the toes of their hind feet, and trip; they alſo occaſion bleymes, and ruin the back ſinews; nevertheleſs, they are neceſſary in a time of froſt; and it is more expedient that a horſe ſhould run ſuch a riſk, than the rider ſhould be in continual danger of breaking his limbs.

Whenever there is occaſion to uſe them, order the farrier to pare the horn a little low at the heel, and turn down the ſponge upon the corner of the anvil, ſo as to make the calkin in the form of a hare's ear, which will do little damage; whereas the great ſquare calkins quite ſpoil the foot.

Calkins, are either ſingle or double, that is, at one end of the ſhoe, or at both: theſe laſt are deemed leſs hurtful, as the horſe can tread more even.

CALL, (with Hunters) a leſſon blown upon the horn to comfort the hounds.

CALLS, natural and artificial; a ſport practiſed much during the wooing ſeaſon of partridges, eſpecially for taking cock partridges; for which they put a hen into a cage, to call and bring them near.

This way in general of taking them, is indeed laborious, and requires much exactneſs, as to the artificial part, in imitating their voices; and you can commonly pretend to take but one at a time.

Partridges begin to pair about *February*, or the beginning of *March*, if the weather is not cold, and continue in their wooing till the end of *July*.

A great many are of opinion, that you will deſtroy the breed, by taking the cocks in this manner; but it is a miſtake, for they do more miſchief to the hens they couple with, than good, hindering them to ſit; and will break their eggs, if they can find them: and in the neſt we often find but ſmall coveys of young partridges, which happens ſo, becauſe the cock being too hot, and too aſſiduouſly purſuing the hen that would lay, ſhe cannot diſengage herſelf from him, and get to her neſt; and ſo chuſes rather to loſe her egg, than go thither in ſight of the cock that would break all the reſt.

It is further to be obſerved, that the cock never knows his hen's neſt; and therefore 'tis more eaſy to take him when ſhe ſits; for believing ſhe is loſt, he goes to the firſt he meets with.

This ſport may be practiſed every day during the aforeſaid wooing ſeaſon, from day-break until ſunriſing, and from ſun-ſetting until night.

The Figure, Plate III. Call I. repreſents the manner how to make them. Suppoſe the ſpace from K to I, to be a hedge that incloſes ſome piece of wheat, barley, or other grain; ſet your hen partridge in a thin, open, fine wire cage, ſo that ſhe may be ſeen at a good diſtance out of the cage; the letters T V Y is the ſpot where ſhe ſhould be placed; then place your net called a hallier *(ſee* HALLIER) as you ſee it formed by the letters K L M N O P Q R S, each part about twenty feet diſtant from the cage, then retire behind the hedge: if any cock partridge on the ground calls, the hen will preſently anſwer; nor will the cock fail to come to her; and five or ſix will ſometimes come together, and fight with each other juſt under the net, which of them ſhall have the hen, until at length ſome of them find themſelves entangled; you muſt not preſently ſally forth in this caſe, for perhaps ſome more may be likewiſe enſnared, nor can they ſoon diſengage themſelves.

The obſerving one caution will ſave a great deal of pains to the ſportſman; and that is, let him never pitch in any place, but where he has heard ſome cock call; then pitch within ſixty or eighty paces, that they may be within hearing of each other.

Let the cage be coloured green, and let the bars be at ſuch a diſtance, that the hen may thruſt out her head and neck to hearken and call; and if you have well trained her to this ſport, ſhe will be induſtrious at it.

But as for cages for partridges, the reader is referred to that article.

Having done with the natural calls, we proceed to the artificial ones.

The following figures repreſent the form of them, Fig. 3 and 4.

The firſt ſhews the outſides, the ſecond the inſide; they are beſt made of box, walnut-tree, or ſuch kind of hard wood, and formed of the bigneſs of a hen's egg; with two ends, A B, bored through from end to end; and about the middle D C, there muſt be a hole about the bigneſs of a ſixpence, hollowed within to the bottom, then have a pipe of a ſwan's quill, and the bone of a cat's foot, opened at one end, which you muſt convey into the hole A, and ſo thruſt it in the hole D; the other end of the bone A, muſt be ſtopped; then take a gooſe quill opened at both ends, which muſt be put in at the hole B, until the end C be at the end D of the bone; then blowing at the end B, you make the noiſe as the cock-partridge does; which varies much from the call of the hen: and you muſt remove farther or nearer the end C of the quill, from and to the end of the bone B, until you have found the exact note; for it is not ſoon done: the call being fixed, and you

expert

expert in the notes, get a net called a pocket net, the form of which is here deſcribed. Fig. 1. *See* QUAILS FOR OTHER CALLS.

To this net fix a pliant ſtick, of about four or five feet long; with which you may go abroad early in the morning, and late in the evening, or as occaſion ſerves: when you hear a partridge call, you have the manner of pitching the net, and the placing yourſelf repreſented in Plate III. For example, ſuppoſe you hear the partridge call at A, hide yourſelf flat upon your belly at B, having planted your net juſt in the way or furrow, between yourſelf and the partridge, but within ten or twelve feet of the net; eſpecially if there be any buſh, or advantage of ground to ſhelter you. The way to ſet the net, is to tie the packthread, number 1, which paſſes into the buckle, number 2, of the net, into the end of the ſtick, which muſt be ſtuck in the ground: and ſo bending it like a bow, faſten the other thread to the ſaid ſtick in the ground, to the other ſide, or furrow: having in like manner tied it to the end of the packthread, number 3, which paſſes through the buckle, number 4, ſo that the two buckles 2 and 4, may come pretty near each other; then take one end of the pocket net, number 5 and 6, and caſt it over the bended ſtick, ſo that it may lie thereon: the other end may lie on the ground, in ſuch manner, that if any thing endeavours to paſs by that way, it muſt needs run into the net.

Every thing being in order, and hearing the partridge call, you muſt return two or three anſwers louder or ſofter according to the diſtance from whence you hear the call, only as loud as to be heard, and the partridge will preſently make near you, then give him a ſoft call: when he has anſwered the firſt call, he will begin to run, and coming near the net, will make a little pauſe, and ruſh on, ſo that the upper part will fall on him, and entangle him; then take him out, and you may be able to take ſeveral after this method: but this way of taking them laſts only during the time of their breeding, which is *April*, *May*, *June*, and *July*.

There is another way of taking partridges with the call and a broad net: having found out your partridge with a call as aforeſaid, pitch your broad net, which ſhould be fourteen or fifteen yards long, and ſeven or eight deep; ſpread this over the ground near them, the length ways to them, then peg down the net on all ſides, except that towards them, and raiſe it up in the midſt, by a ſtick about four feet long, with a notch in the top, the better to hold the line or net from ſlipping, and bend the ſtick from the net to make it ſtiffer, which ſtick muſt be ſtuck into the ground the better to hold.

When you have in this manner fixed your net, you muſt either have a natural or artificial ſtalking-horſe to drive them into your net, but the natural one is reputed the beſt, if trained up for the ſport.

CANARY-BIRD, an admired ſinging-bird, of a greeniſh-yellow colour, that takes its name from the place from whence they came, *viz.* from the *Canary-iſles*, and no where elſe; but of late years, there is a ſort of birds, that are brought in abundance from *Germany*, eſpecially from *Tirol*, and are therefore called *German* birds; being a much better ſort than the other, though their originals are ſuppoſed to have been firſt brought from the ſame place.

Theſe birds, that is, the cocks, never grow fat, and they cannot be diſtinguiſhed by ſome country people from common green birds; though the canary-birds are much luſtier, have a longer tail, and differ much in the heaving of the paſſages of the throat, when they ſing.

But to make a right choice of this bird, and to know when he has a good ſong; in the firſt place, let him be a long bird, ſtanding ſtraight, and not crouching, but ſprightly like a ſparrow-hawk, ſtanding with life and boldneſs, and not ſubject to be fearful.

Theſe birds being ſo much eſteemed for their pleaſing ſong, are ſometimes ſold at a high price, more or leſs, according to the goodneſs and excellency of their notes, there being a great difference in them.

It is very advifable before you buy, firſt to hear them ſing, for the buyer will then pleaſe his ears; for one fancies a ſong bird, another a very harſh bird, if he be not ſo ſweet: though undoubtedly the beſt canary-bird, in general, is that which has the moſt variety of notes, and holds out in ſinging the longeſt.

In order to know whether a bird is in health before you buy him, take him out of the ſtore cage, and put him in a clean cage ſingly, and if he ſtand up boldly, without crouching or ſhrinking in his feathers, and look with a briſk eye, and not ſubject to clap his head under his wing, it is a ſign that he is in good health but yet he may be an unhealthy bird.

But the greateſt matter is to obſerve his dunging; if he bolts his tail like a nightingale after he has dunged, it is a great ſign that he is not in perfect health; though he may ſing at preſent, and look pretty briſk, you may aſſure yourſelf, it will not be long before he will be ſick; but if his dung be very thin like water, or of a ſlimy white without any black in it, it is a ſign of approaching death.

When a canary-bird is in perfect health, his dung lies round and hard, with a fine white on the outſide, and dark within, dries quickly, and the larger the dung is, the better, ſo that be long, round, and hard: but as to a ſeed-bird, he very ſeldom dungs ſo hard, unleſs he be very young.

Canary-birds are ſubject to many diſeaſes, as impoſthumes, which affect the head, and cauſe them to fall ſuddenly from the perch, and die in a ſhort time, if not ſpeedily cured.

The moſt approved medicine, is an ointment made of freſh butter and capon's greaſe, melted together, with which anoint the top of the bird's head, for two or three days together, and it will diſſolve it, and cure him; but if you have let it alone too long, then after you have anointed him three or four times, ſee whether the place of his head be ſoft, and if ſo, open it gently and let out the matter, which will be like the yolk of an egg; when you have done this, anoint the place, and this will immediately cure him.

And if you find the impoſthume at any time return, do as before directed; you muſt alſo give him figs, and in his water let him have a ſlice or two of liquorice, with white ſugar-candy.

Some are ſo curious as to breed theſe birds in *England*, and they have excelled all others. For the ordering of theſe birds when they begin to build, or are intended for breeding, make a convenient cage, or prepare a room that may be fit for that purpoſe, taking care to let it have an opening towards the riſing of the ſun; where you muſt have a piece of wire, that they may have egreſs and regreſs at their pleaſure: when this has been done ſet up ſome brooms, either heath or frail, in the corners of it, opening them in the middle, and if the room be pretty high two or three yew-trees may be ſet up, but not too near, as the birds will not endure to ſee themſelves ſo near each other's neſts; as the cock and hen will be apt to fly on an hen that is not matched to them, when they ſee them near their neſt, which many times cauſes the ſpoiling of their eggs and young ones.

In the next place you muſt cauſe ſomething to be made ſo convenient, and of ſuch bigneſs as may hold meat a conſiderable time, that you may not be diſturbing them continually, and a proper veſſel for water alſo; and the place where the ſeed is intended to be put, muſt be ſo ordered that it may hang out of the reach of the mice, for they are deſtroyers of them: you muſt likewiſe prepare ſome ſtuff of ſeveral ſorts of things, ſuch as cotton, wool, ſmall dead graſs, elk's hair, and a long ſort of moſs that grows along by ditch ſides, or in the woods, for them to build their neſts with.

Dry them well before you put them together, then mingle all well, and put them up into a net like a cabbage-net, hanging it ſo that they may with eaſe pull it out.

You muſt alſo ſet perches about the room, and if it be large enough ſet a tree in the middle of it, that ſo they may take the more pleaſure; and always remember to proportion your birds according to the largeneſs of the room, and rather let it be under ſtocked than over ſtocked, for they are birds that love their liberty.

When you perceive them to begin to build and carry ſtuff, give them once a day, or in two days at leaſt, a little greens and ſome coarſe ſugar; for that will cauſe a ſlipperyneſs in the body, ſo that the eggs may come forth without injuring the birds: for they die many times in laying the firſt egg, which is a loſs to the breeder; firſt in reſpect to his firſt breed, then to the unpairing of the cock, to which you ought to put another hen, whether he will pair or no: but it would be much better if that cock was taken out, than ſuffered to continue in the breeding place, eſpecially if it be ſmall; but in a large place with ſeveral pairs he cannot do that injury, and it will be a difficult matter to diſtinguiſh which is the cock of that hen that died, and as difficult to take him in a large place, without doing more injury than the bird would do: ſo that it will be beſt to let him reſt till the end of the year: when if you leave but two or three pair together, it will be the beſt way to take him out, and match him with another hen, and then put him in again.

Beſides, when you find that they have built their neſts, the nets that have their breeding ſtuff in them may be taken away, for they will be apt to build upon their eggs with new ſtuff, if they do not ſet preſently.

As to the time of their breeding, it is uſually three times a year, *viz.* in *April*, *May*, *June*, and ſometimes in *Auguſt*: as for ordering the young ones, they muſt not be left too long in the neſts; for they are very apt to grow ſullen, and will not feed kindly; therefore they are to be taken out at about nine or ten days old, and put into a little baſket and covered over with a net, or elſe they will be apt to jump out upon the firſt opening of the baſket, and be hurt, if they fall down.

They muſt alſo be kept very warm for the firſt week; for they will be very tender, ſubject to the cramp, and not digeſt their meat, if they take cold.

And when they are taken from the old canaries, let it be in the evening, and if poſſible when the old ones are out of ſight; otherwiſe they will be very apt to take diſtaſte when they ſit again and have young ones, and ready at every fright to forſake both their young and their eggs.

As to the preparation of their meat; ſoak ſome of the largeſt rape-ſeed in water for twenty or twenty-four hours: but if the water be a little warm twelve hours may be enough, then drain the water from the ſeed, and put a third part of white bread to it, and a little canary-ſeed in flower, and mix them all together.

With a ſmall ſtick take up a little at the end of it, and give every bird ſome, two or three times over; for if you overcharge their ſtomachs at firſt, they ſeldom thrive after.

Remember that the old ones give them but a little at a time, and the meat they receive from them is warmed in the ſtomach, before they give it them, and then all rape is hulled, which lies not ſo hard at the ſtomach, as thoſe ſeeds which have the ſkin on.

Neither muſt their meat be made too dry; for then they will be apt to be vent burnt, as all ſeeds are hot.

It is obſervable, that the old ones conſtantly drink after they have eaten ſeeds, and a little before they feed their young ones: and they commonly ſit a quarter of an hour or more feeding them, to keep them warm, that the meat may the better nouriſh them; therefore when you have fed them, let them be covered up very warm, that their meat may the better digeſt.

The ſeveral names of theſe birds at different times and ages are; ſuch as are above three years old are called Runts, thoſe above two are named Eriſſes, and thoſe of the firſt year, that the old ones bring up are called Branchers; thoſe that are new flown and cannot feed themſelves, Puſhers; and thoſe that are bred up by hand, Neſtlings.

CANCELLIER, a term uſed in falconry, when a light flown hawk in her ſtooping turns two or three times upon the wing, to recover herſelf before ſhe ſeizes.

CANKER IN HAWKS, a diſtemper breeding in the throat and tongue, proceeding from foul feeding.

CANKER IN HORSES, is a very loathſome diſeaſe, which if continued long uncured, ſo feſters and putrifies the part, that it will eat to the very bone; and if it happens

happens to come upon the tongue, will eat it aſunder; lighting upon the noſe, it devours the griſtle through; and if it comes upon any part of the fleſh, it will fret and gnaw it a great breadth. It will be eaſily known, for the places where it is will be raw and bleed much, and a white ſcurf will often grow upon the infected part.

This diſeaſe may be cauſed many ways, either by the engendering of melancholy and foul blood in the body, by unwholeſome meat, and by ſome ſharp and ſalt humours, proceeding from cold not long before taken, which will render his breath very ſtinking.

CANKER IN THE FOOT OF A HORSE: this complaint is in general occaſioned by neglect, in ſuffering the thruſh (by its unchecked continuance) to aſſume a degree of inveteracy, corroding the ſurrounding parts, and conſuming the frog by its acrimonious and penetrative property; promoting the growth of fungus in proportion to the deſtruction of parts originally ſound.

The ſafeſt and moſt expeditious method of reducing this, will be by occaſional applications of lint well impregnated with the following lotion:

Take of corroſive ſublimate and Roman vitriol, of each one drachm; ſpirits of wine, one ounce; and ſpring-water, half a gill. Let the ſublimate and vitriol be reduced to a very fine powder in a mortar; then add the ſpirits by ſmall proportions; and, laſtly, the water, keeping the whole cloſely ſtopped for uſe.

This being properly ſecured upon the part, till entirely ſubdued, the cure may be effected with dreſſing of the following precipitate digeſtive, and the ſurface afterwards hardened by waſhing with tincture of myrrh. Take of yellow baſilicon two ounces; turpentine and black baſilicon of each one ounce; and red precipitate (powdered very fine) half an ounce. The two baſilicons to be melted together over the fire; when taken off, ſtir in the turpentine; and, laſtly, when cool, add the precipitate, and let it be minutely incorporated upon a ſtone or marble ſlab.

CANKER IN THE HEAD OF A HORSE: this complaint is diſcovered by the rawneſs and yellow matter; to cure which, obſerve the following:

Take a pint of olive oil, three ounces of Burgundy-pitch, and an ounce of waſhed turpentine; put them all into a pipkin, and mix them together over a gentle fire; and, when they are mixed, add an ounce of verdegris, and boil them up to the thickneſs of a ſalve, ever keeping the matter ſtirring; make a plaiſter, and apply it to the canker, according to the advantage of the place where it is ſituated, having firſt rubbed off the ſcurf or ſcabs; and, if it happens to be in the noſtrils, having waſhed it with a ſponge at the end of a ſtick, dipped in ſalt and vinegar to cleanſe it, warm the ſalve, and, dipping a feather therein, anoint the place afflicted with it when warm, and capable of ſticking by the like application.

CANKER IN THE MOUTH OF A HORSE is frequently very troubleſome from its ſituation, and ſometimes productive of great diſquietude by the length of its continuance; it generally originates in any excoriation or wound in the mouth, becoming foul, and containing a corroding ſlough (in the nature of a fiſtfaſt) that muſt be taken away or deſtroyed before a cicatrix can be formed to perfect a cure. Various ancient rules and preſcriptions have been tranſmitted from generation to generation for the performance of this very elaborate buſineſs; ſome totally inadequate to the intent, and others ſo efficaciouſly powerful, as to render the remedy worſe than the diſeaſe. To remove every degree of ſuſpenſe, as well as prevent trouble and diſappointment in the purſuits of far-fetched remedies, uſe the following method of cure.

Take borax and burnt allum, of each half an ounce; let them be reduced to a very fine powder, and diſſolved in a quarter of a pint of boiling water; when cold add one ounce of ſtyptic tincture, and let the parts be plentifully touched with the ſolution twice every day, till the ſlough comes away; when the cure may be completed, by touching occaſionally with tincture of myrrh and white-wine vinegar equal parts.

CANKER, IN THE NOSE OF A HORSE: this complaint proceeds from a virulent humour contracted there, occaſioned by inflammation: to cure this, or indeed one in any part of the body, obſerve the following remedy:

Take of white-wine vinegar, a quart; of roach-allum, two pounds; a pint of the juice of plantain; and as much of that of rue; with four ounces of honey; boil them to the conſumption of a third part, and waſh the afflicted part therewith, as hot as the horſe can endure it, morning and evening, and the canker will decay within a fortnight.

CANKER IN DOGS; a diſtemper that ſeizes their ears, but does not much incommode them.

The cure: take two ounces of ſoap, the ſame quantity of oil of tartar, ſulphur, ſal-ammoniac, and verdegris, incorporate all together with vinegar and aqua-fortis, with this rub the parts affected and it will cure.

CANKER, IN PIGEONS, uſually takes its riſe from the cocks pecking and fighting one another; though ſome fanciers ſay, that giving them water in a metal or tin veſſel, will bring on this diſorder. In order to remove this, uſe the following:

Take burnt allum and honey, and rub the affected part every day; but, when this has not the deſired effect, diſſolve five grains of Roman vitriol in half a ſpoonful of wine vinegar, mix it with the former medicine, and anoint the part affected. Some people ſtrip off the ſcurf and make it bleed, before they apply the remedy; but my opinion is, that the medicine is ſearching enough without that.

CANNON MOUTH OF A BITT, is a round but long piece of iron, conſiſting ſometimes of two pieces that couple and bend in the middle, and ſometimes only of one piece that does not bend, as in the cannon-mouth a *trompe*.

Cannon-mouths of all ſorts are deſigned to keep the horſe in ſubjection; and are ſo contrived that they riſe gradually towards the middle, and aſcend towards the palate; to the end that the void ſpace left underneath may give ſome liberty to the tongue.

CAPARASSON, OR HORSE CLOTH, is a ſort of cover for a horſe.

For

For led horſes it is commonly made of linen cloth, bordered round with woollen, and enriched with the arms of the maſter upon the middle, which covers the croupe, and with two cyphers on the two ſides.

The caparaſſons for the army are ſometimes a great bear's ſkin, and thoſe for ſtables are of ſingle buckram in ſummer, and of cloth in winter.

CAPELET, a diſeaſe in horſes, when the tip of the hock is moveable, and more ſwelled than ordinary; when it is ſmall it does no great damage, but if it grow large it will be painful, and make a horſe loſe his belly.

Bruiſes and other accidents will frequently occaſion them, but then they are of little conſequence, and if waſhed with vinegar will ſoon ſubſide. But if they grow naturally, and are found on both the elbows, or hocks, you may ſuppoſe that the blood is not good, and that ſome of the veſſels are broken.

Suppuration ſhould be uſed by rubbing the part with ointment; and, when a ſufficient quantity of matter is formed, you ſhould let it out with a lancet towards one ſide, and then a ſcar will be avoided. You may dreſs the wound with the following mixture:

Take of tincture of myrrh, turpentine, and honey, of each an equal quantity; apply it frequently: the relaxed ſkin ſhould be bathed with equal quantities of vinegar and ſpirits of wine, to which a little oil of vitriol may be added.

When theſe ſwellings or tumours proceed from indiſpoſition of blood, they are beſt let alone; for they will often wear away imperceptibly without any external applications; but if there is no appearance of their immediately ſubſiding, and they are like to prove tedious, diſperſe them by repellents, and uſe purges and diuretic medicines, for theſe will correct the blood, and carry off the ſuperfluous juices.

CAPON, a cock chicken gelded as ſoon as left by the dam, that being the beſt time, if his ſtones be come down, or elſe as ſoon as he begins to crow. They are of two uſes.

The one is to lead chickens, ducklings, young turkies, pea-hens, pheaſants, and partridges, which a capon will do all together both naturally and kindly; and by means of the largeneſs of his body will cover and brood thirty or thirty-five of them.

Nay he will lead them forth more ſafely, and defend them much better againſt kites and buzzards than the hen.

Therefore the way to make him like them, is with a ſmall fine briar, or elſe ſhary nettles, at night, to beat and ſting all his breaſt and nether parts, and then in the dark to put the chickens under him, the warmth of which will take away the ſmart, and induce him to be fond of them.

CAPRIOLES, are leaps that a horſe makes in the ſame place without advancing, in ſuch a manner, that when he is at the height of his leap, he yerks out with his hinder legs even and near. It is the moſt difficult of all the high manage. It differs from croupades in this, that in a croupade the horſe does not ſhew his ſhoes; and from a balotade in this, that in a balotade he does not yerk out.

Your horſe will never work well at caprioles unleſs you put him between two pillars, and teach him to raiſe firſt his fore quarters, and then his hind quarters, while his fore are yet in the air; for which ends you muſt give the aids of the whip and the poinſon.

If you would teach your horſe to make caprioles, and yerk out handſomely with his hinder feet, ſtay and help with your hand, and your heels.

This leaping horſe takes to caprioles himſelf, for he makes equal leaps, and that upon the hand, *i. e.* without forcing the hand, and reſting heavy upon the bridle. *See to* YERK.

CARACOL, is an oblique piſte or tread traced out in a ſemi-round, changing from one hand to another, without obſerving a regular ground.

When horſes advance to charge in battle, they ſometimes ride up in caracols, to perplex the enemy, and make them doubtful whether they are about to take them in the front, or in the flank.

Caracol is a *Spaniſh* word; and in that language ſignifies the motion that a ſquadron of horſes makes, when upon an engagement, the firſt rank has no ſooner fired their piſtols, but they divide, and open it into two half ranks, the one wheeling to the right, the other to the left, along the wings of the body, to the rear. Every rank obſerves the ſame order of firing; and turning or wheeling from the front to the rear, is called a caracol.

To caracol, is to go in the form of half rounds.

CAREER; this word ſignifies both the ground that is proper for the manage and courſe, and race of a horſe that does not go beyond two hundred paces.

This barb makes a very good career, from pacing to ſtopping.

This *Engliſh* horſe does not finiſh his career; that is, does not finiſh his courſe with the ſame ſwiftneſs; and does not move ſo ſhort and ſwift at the middle and end as at the beginning.

This *Spaniſh* horſe is fit for the ring; he has a ſhort and ſwift career, and holds it an hundred paces.

CARP, is generally taken for the queen of freſh water fiſh; being ſubtle, and living longeſt of all fiſh (excepting the eel) out of its proper element.

Carp and loaches are obſerved to breed ſeveral months in one year, which pikes and moſt other fiſh do not. This is partly proved by tame and wild rabbits, as alſo by ſome ducks, which will lays eggs nine of the twelve months; there are ducks that lay not longer than about one month. And it is the rather to be believed, becauſe you ſhall ſcarce or never take a male carp without a melt, or a female without a roe or ſpawn, and for the moſt part very much, and eſpecially all the ſummer ſeaſon; and it is obſerved, that they breed more naturally in ponds than in running waters, if they breed there at all; thoſe that live in rivers, are taken to be much the better meat.

And it is obſerved, that in ſome ponds carps will not breed, eſpecially in cold ponds; but where they will breed, they breed innumerably; ARISTOTLE and PLINY ſay, ſix times in a year, if there be no pikes nor pearch to devour their ſpawn, when it is caſt upon graſs, or flags, or weeds, where it lies ten or twelve days before it be enlivened.

The

The carp, if he hath water room and good feed, will grow to a very great bigneſs and length.

As the increaſe of carps is wonderful for their number, ſo there is not a reaſon found out, by any, why they ſhould breed in ſome ponds, and not in others of the ſame nature for ſoil and all other circumſtances: and as their breeding, ſo are their decays alſo very myſterious; I have known ſixty or more large carps put into ſeveral ponds near to a houſe, where by reaſon of the ſtakes in the ponds, and the owners conſtantly being near to them, it was impoſſible they ſhould be ſtole away, and when he has after three or four years emptied the pond, and expected an increaſe from them by breeding young ones, he had, as the rule is, put in three melters for one ſpawner, and found neither a young nor old carp remaining.

JANUS DUBRAVIUS wrote a book of fiſh and fiſh-ponds, in which he ſays, that carps begin to ſpawn at the age of three years, and continue to do ſo till thirty: he ſays alſo, that in the time of their breeding, which is in ſummer, when the ſun hath warmed both the earth and the water, and ſo apted them alſo for generation, that then three or four male carps will follow a female; and that then ſhe putting on her ſeeming coyneſs, they force her through weeds and flags, where ſhe lets fall her eggs or ſpawn, which ſticks faſt to the weeds, and then they let fall their melt upon it, and it becomes in a ſhort time to be a living fiſh. It is thought the carp does this ſeveral months in the year, and many believe that moſt fiſh breed after this manner, except the eel: and it has been obſerved, that when the ſpawner has weakened herſelf by doing that natural office, that two or three melters have helped her from off the weeds by bearing her up on both ſides and guarding her into the deep. It is thought that all carps are not bred by generation, but that ſome breed other ways, as ſome pikes do.

The phyſicians make the galls and ſtones in the head of carps to be very medicinal; but it is not to be doubted, but that in *Italy* they make great profit of the ſpawn of carps, by ſelling it to the Jews, who make it into red caviare, the Jews not being by their law admitted to eat of caviare made of the ſturgeon, that being a fiſh that wants ſcales, and as may appear in *Levit.* xi. by them reputed to be unclean.

Much more might be ſaid out of him, and out of ARISTOTLE, which DUBRAVIUS often quotes in his diſcourſe of fiſhes; but it might rather perplex than ſatisfy.

The haunts of river carp are, in the winter months, the broadeſt and moſt quiet parts of the river; but in ſummer they lie in deep holes, nooks and reaches, near ſome ſcour, and under roots of trees, hollow banks, and till they are near rotting, amongſt or near great beds of weeds, flags, *&c.*

Pond carp cannot, with propriety, be ſaid to have any haunts, only it is to be noted that they love a fat rich ſoil, and never thrive in a cold hungry water.

They breed three or four times a year, but their firſt ſpawning-time is the beginning of *May*.

Baits for the carp are all ſorts of earth and dunghill worms, flag-worms, graſshoppers, though not at top, ox-brains, the pith of an ox's back-bone, green-peas, and red or black cherries, with the ſtones taken out.

Fiſh with ſtrong tackle, very near the bottom, and with a fine graſs or gut next the hook, and uſe a gooſe-quill float. Never attempt to angle for the carp in a boat, for they will not come near it.

It is ſaid there are many carp in the *Thames*, weſtward of *London*, and that about *February* they retire to the creeks in that river; in ſome of which many above two feet long have been taken with an angle. *Angler's ſure Guide*, 179.

Carp live the longeſt out of the water of any fiſh. It is a common practice in *Holland*, to keep them alive for three weeks or a month, by hanging them in a cool place, with wet moſs in a net, and feeding them with bread and milk.

CARP-FISHING.

A perſon who angles for a carp, muſt arm himſelf with abundance of patience, becauſe of his extraordinary ſubtilty and policy: they always chuſe to lie in the deepeſt places, either of ponds or rivers, where there is but a ſmall running ſtream.

Obſerve, that they will ſeldom bite in cold weather; and you cannot be either too early or too late at the ſport in hot weather; and if he bite you need not fear his hold, for he is one of thoſe leather-mouthed fiſh, that have their teeth in their throat.

Neither muſt you forget, in angling for him, to have a ſtrong rod and line; and ſince he is ſo very wary, it will be proper to entice him, by baiting the ground with a coarſe paſte.

He ſeldom refuſes the red worm in *March*, the caddis in *June*, nor the graſshoppers in *June*, *April*, and *September*.

This fiſh does not only delight in worms, but alſo ſweet paſte; of which there is great variety; the beſt is made up of honey and ſugar, and ought to be thrown into the water ſome hours before you begin to angle; neither will ſmall pellets thrown into the water two or three days before, be the worſe for this purpoſe, eſpecially if chicken's guts, garbage, or blood mixed with bran and cow-dung be alſo thrown in.

But more particularly, as to a paſte very proper for this uſe, you may make it in the manner following: take a ſufficient quantity of flour, and mingle it with veal, cut ſmall, making it up with compound of honey; then pound all together in a mortar, ſo long, till they are ſo tough, as to hang upon the hook without waſhing off.

In order to effect which the better, mingle whitiſh wool with it; and if you keep it all the year round, add ſome virgin's wax, and clarified honey.

Again, if you fiſh with gentles, anoint them with honey, and put them on your hook, with a deep ſcarlet dipped in the like, which is a good way to deceive the fiſh.

Honey and crumbs of white bread mixed together, is alſo a very good paſte.

To make carp fat, and very large: when your pond, in *April*, begins to grow very low in water, rake all the ſides

ſides of it with an iron rake, where the water is fallen away; then ſow hay-ſeeds, at the latter end of ſummer there will be a good growth of graſs; which, when winter comes, and the pond begins to riſe by rain to the top, it will overflow all that graſs, and be a feeding-place for them, and make them exceeding fat. As for the way of taking a carp in a muddy pond, *ſee* TENCH.

In taking a carp either in pond or river, if the angler intends to add profit to his pleaſure, he muſt take a peck of ale grains, and a good quantity of any blood, and mix with the grains, baiting the ground with it where he intends to angle.

This food will wonderfully attract the ſcale-fiſh, as carp, tench, roach, dace, and bream.

Let him angle in a morning, plumbing his ground, and angling for a carp with a ſtrong line; the bait muſt be either paſte, or a knotted red worm, and by this means he will have ſport enough.

CARRY LOW; a horſe is ſaid to carry low, that has naturally a ſoft, ill-ſhaped neck, and lowers his head too much.

All horſes that arm themſelves, carry low; but a horſe may carry low, without arming; for when he arms himſelf, his neck is too ſupple, and he wants to evade the ſubjection of the bridle: but when he carries low, he has his neck ill-placed, and ill-made.

To carry well, or in a becoming poſture, is ſaid of a horſe, whoſe neck is raiſed, or arched, who holds his head high, without conſtraint, firm, and well placed.

To CARRY, (with Falconers) is a term uſed of a hawk; who is ſaid to carry, when ſhe flies away with the quarry.

CARRYING, (with Hunters) a term uſed of an hare; of which when ſhe runs on rotten ground, or in a froſt ſometimes, and it ſticks to her feet, the huntſmen ſay, ſhe carries.

CARROTS, after repeated experiments by members of the Agriculture Society, have been proved to be the beſt article for the feed of either horned cattle, ſheep, or deer.

CART-HORSES are well known to be of the largeſt and coarſeſt deſcription; their Belgic origin is well known. As it is the general opinion, that the ſaddle-horſe ought to be ſharp and frigate-built, ſo they hold that the cart-horſe ſhould be round, and (to borrow a liſt from SMOLLETT) as bluff in the bows, as a Dutch fly-boat. Rotundity, or the form of carrying their ſubſtance in a horizontal poſition, ſeems to be the grand characteriſtic of Engliſh draft-horſes. They ſay, this make of the ſhoulder, is the beſt adapted to drawing along, or moving weights; farther, that it is not ſo liable to chafe with the collar, as the flat and deep form. Both BRACKEN and OSMER ſeem diſpoſed, in part, to controvert theſe poſitions, probably from their prejudice in favour of bred cattle. That large bred horſes would draw, there is no doubt; and it is true, that the ſuperior ſtrength and elaſticity of their tendons would enable them to make great exertions; but the article of groſs weight has a conſiderable degree of conſequence in this buſineſs, and experience ſeems to be decidedly in favour of nearly the preſent form and ſpecies of cart-horſe.

A very erroneous idea has prevailed, concerning cart-horſes, that provided they are big, heavy, and clumſy enough, all farther conſiderations are needleſs; on the contrary, it is both theoretically and practically true, that great abilities for draft muſt depend materially upon juſt proportion; and that four thorough-ſhaped horſes, will draw with facility, a weight which would puzzle five ordinary ones, although of equal, or even ſuperior ſize: a truth which they ought to reflect upon, who have a conſiderable number of thoſe animals to maintain.

A capital cart-horſe is not more than ſixteen hands high, with a briſk ſparkling eye, a light well-ſhaped head, and ſhort pricked ears, full cheſt and ſhoulder, but ſomewhat forelow; that is to ſay, having his rump higher than his fore hand; ſufficient general length, but by no means leggy; large and ſwelling fillets, and flat bones; he ſtands wide all-fours, but wideſt behind; bends his knee well, and has a briſk and cocking walk.

Many of the knights of the ſmock-frock and the whalebone, would ſhake their heads at my commending length in a cart-horſe; nevertheleſs nothing is more true, than that in the account of juſt proportion, length will not be forgot; and that not only length, but a certain degree of room and freedom of ſhape is abſolutely neceſſary to enable the horſe to make thoſe active ſprings, which contribute more than mere bulk, to the tranſlation of a maſs of weight. Your ſhort-legged, cloddy horſes, as they are ſtyled, are generally too ſluggiſh and ſlow, ſubject to greaſe, and thoſe diſorders ariſing from a thick and ſizy blood; but ſuch are preferable to the looſe, leggy, and weak-loined; the worſt poſſible ſhapes of draft-horſes.

The breeds of cart-horſes, moſt in faſhion in our iſland, at preſent, are the HEAVY BLACKS of the midland counties, the SUFFOLK PUNCHES, and thoſe of CLYDESDALE in North-Britain.

The firſt are thoſe capital ſized, and high-priced horſes, made uſe of by the brewery and diſtillery in London, and by the farmers of Berkſhire and Hampſhire, and a few other parts, where their teams form a conſiderable article of oſtentation and parade.

The SUFFOLK PUNCHES, which alſo extend to Norfolk, are low horſes, rather coarſe-headed, with indifferent ears, in general cheſtnut, (provincially ſorrel) fore-low, with deep and large carcaſes, and nimble walkers and trotters. They have ever proved themſelves the trueſt and beſt drawers in the world, as well as the hardieſt, and moſt uſeful cart and plough-horſes. Their nimbleneſs, it ſhould ſeem, is owing to their length and moderate ſize; and their immenſe powers in lifting weight, to the ſame cauſe, combined with the low poſition of the ſhoulder, which occaſions the weight to be acted upon, in a juſt and horizontal direction. Their ſuperiority over all other horſes, at drawing dead pulls, is no doubt, in ſome meaſure, owing to early training, as in no country is ſuch pride taken, in teaching horſes to draw; and it is well known, that a team of Suffolk horſes, the ſignal being given, will all down

upon

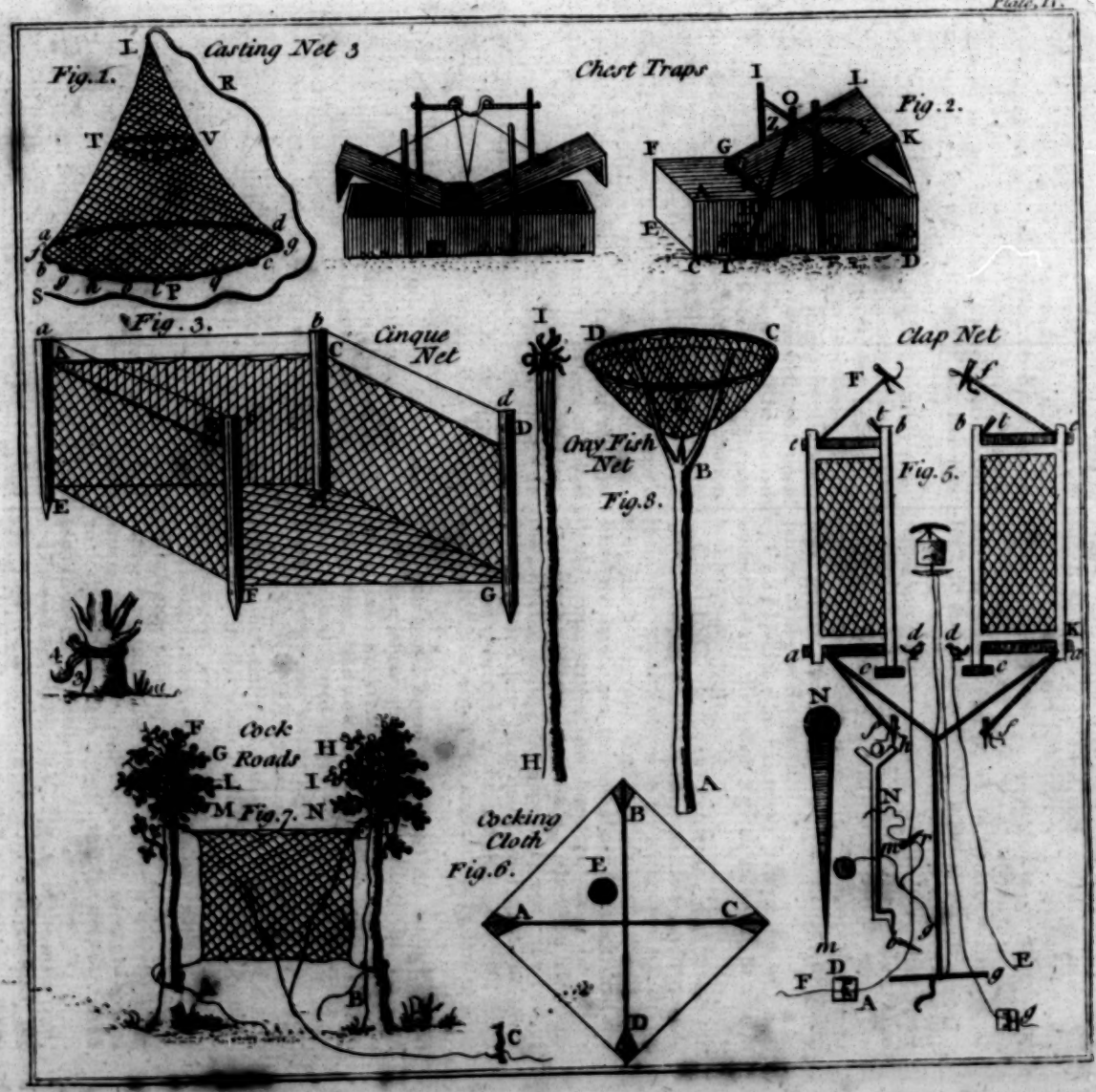
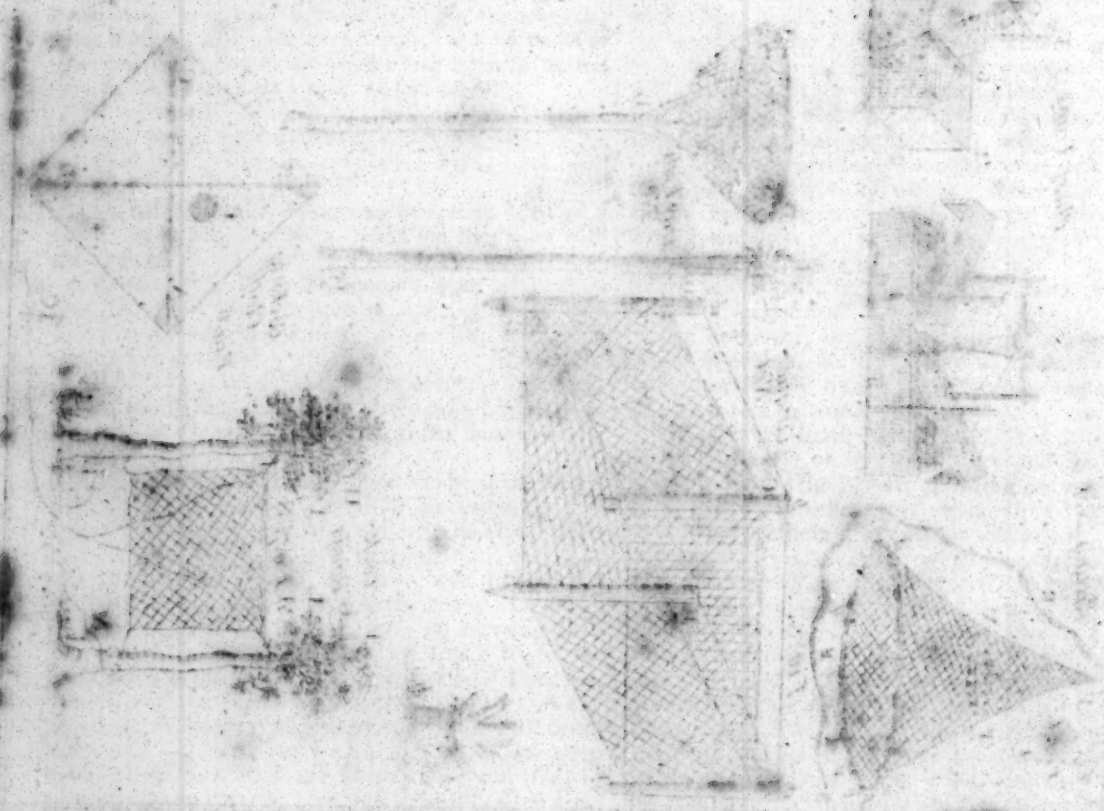


Plate. IV.
Casting Net 3
Fig. 1.
Chest Traps
Fig. 2.
Fig. 3.
Cinque Net
Clap Net
Fig. 5.
Gray Fish Net
Fig. 8.
Cock Roads
Fig. 7.
Cocking Cloth
Fig. 6.



upon their knees, and leave nothing behind them, that is within the power of fleſh and blood to draw away. As to draft-cattle, nothing need be done, but give thoſe of Suffolk a fine head and ear, and flat legs, and we are then at the top of it.

But there is another breed of horſes, in Suffolk and Norfolk, (how they came there, is ſomewhat difficult to aſcertain) well fitted both for the ſaddle and draft. A cart horſe of this deſcription, which, bating a little coarſeneſs of the head, was perhaps as fit to get hacks and hunters, from proper mares, as the beſt bred horſe alive. A Norfolk farmer, about forty years ago, had a peculiar ſort, which he ſtyled his Brazil breed. This blade of a farmer, would, it ſeems, unharneſs one of his plough horſes, ride him to a neighbouring fair, and after winning with him a leather plate, ride him home again, in triumph, to his wife.

The late Mr. BAKEWELL, of Diſhley, ſo juſtly celebrated for his hoſpitality, and the general humanity of his character, rendered the moſt eminent ſervices to his country, by his improvements in live ſtock. If he failed in any thing, it was in his judgment of horſes. Mr. BAKEWELL's chief attention was beſtowed upon ſheep and horned cattle. The black horſe he ſhewed at TATTERSALL'S, ſome years ſince, for the purpoſe of getting ſaddle-horſes, did not meet the approbation of intelligent breeders, nor did he appear at all calculated to ſuit the common run of mares.

Of the CLYDESDALE horſes, take Mr. CULLEY's deſcription, "probably as good and uſeful a draught-horſe as any we are poſſeſſed of; larger than the Suffolk punches, being from fifteen to ſixteen and half hands high, ſtrong, hardy, and remarkable true pullers, a reſtive horſe being rarely found amongſt them. In ſhape, in general plain made about the head, ſides, and hind-legs; moſtly grey or brown, ſaid to have been produced from common Scotch mares and Flanders horſes, a hundred years ago."

But the ſize, rather than the ſort, of our cart-horſes, has become the chief object of conſideration, ſince it has been the cuſtom to breed them up to a ton weight, and ſeventeen and even eighteen hands high.

Theſe over-ſized horſes are neither able to do, nor do they, more work than thoſe of moderate ſize and true proportion: for in growing them up to this vaſt bulk, you gain only in beef, and WEIGHT TO BE CARRIED, but nothing in the ſize and ſubſtance of the ſinews and muſcles, the cords, levers, and pullies, which are deſtined to move their own as well as any extraneous maſs. By this reaſoning, it ſhould ſeem, that the out-ſized are unable to perform even ſo much work, as the middling; and another argument againſt them, equally juſt, is, that they muſt, in general, conſume a proportional larger quantity of every neceſſary.

I muſt alſo beg leave to refer all breeders to Mr. CULLEY's book before-mentioned, where they will find it recommended to mix even a little racing blood, with the cart-ſtock; and where they may read of the wonderful exertions, in carting-buſineſs, upon the road, of the CLEVELAND BAYS, a ſort of coach horſes. Although bred horſes are, of all others, the moſt ſluggiſh, yet it is well known, that a mixture of their blood gives ſpirit and activity to other races. Although theſe half-bred cart-horſes may perform well in light work, and upon hard roads, they may not be ſo well calculated for ſtiff clays and heavy ſands.

There is alſo a very material idea, with which I wiſh earneſtly to impreſs the minds of all breeders of draft-cattle; it is, that in breaking the colt, they always teach him to back readily, and to go quietly in the ſhafts. Every man who has had much to do with cart-horſes, well knows the abuſe, and the miſeries they ſuffer, when they have not been taught to back; and alſo the trouble and fuſs there is in a preſs of buſineſs, becauſe, truly, Ball is too modeſt to go before, and Whitefoot, peradventure, too ambitious to go behind; whereas, they ſhould be all ſo far accuſtomed, as, at leaſt, to make a decent ſhift in any place.

There are horſes, whether from ſome latent and internal weakneſs, or whatever occult cauſe, which never can be forced by the utmoſt ſeverity, to ſtrain at dead pulls, and yet in all ordinary buſineſs, and where the weight follows freely, and is in obvious proportion to their powers, they may be as good, and as ſerviceable horſes, as any in the world.

CASTINGS, (in Falconry) a term by which is underſtood any thing that is given an hawk, to cleanſe and purge his gorge.

CASTING, OR OVERTHROWING, A HORSE: the way to do this, is to bring him upon ſome even ground, that is ſmooth and ſoft, or in the barn, upon ſoft ſtraw; then take a long rope, double it, and caſt a knot a yard from the bow; put the bow about his neck, and the double rope betwixt his fore-legs, about his hinder paſterns, and under his ſetlocks; when you have done this, ſlip the ends of the rope underneath the bow of his neck, and draw them quick, and they will overthrow him; then make the ends faſt, and hold down his head, under which you muſt always be ſure to have ſtore of ſtraw.

If you would brand a horſe on the buttock, or do any thing about his hinder legs, that he may not ſtrike, take up his contrary fore-leg; and when you brand him, take care the iron be red hot, and that the hair be both ſeared away, and the fleſh ſcorched in every place, before you let him go.

CASTING-NET: there are two ſorts of theſe fiſhing-nets, but much alike in uſe and manner of caſting out, wherein the whole ſkill of the working conſiſts. *For the Figure, ſee the Plates* III. *and* IV.

When this net is exactly thrown out, nothing eſcapes it, bringing all away within its reach, as well weeds, ſticks, and ſuch like traſh; but it is thereby often broke, therefore you muſt be careful in what bottoms you caſt, and how it is caſt off, that the net may ſpread itſelf in its due dimenſions.

Draw a loop, S, Plate IV. Fig. 1. of the main cord, over your left arm, and graſp with your left hand, all the net from T to V, about three feet from the bottom, where the leads hang, and let the leads juſt reſt on the ground: with your right hand take up about a third part, as from D to L, and caſt it over your left ſhoulder, like a cloak: then take another third part, from A to I, in your right hand, and let the reſidue remain

hanging down: when you have done this, ſtand upright, and being at the place where you intend to caſt it off, incline yourſelf firſt, a little towards the left hand, that you may afterwards ſwing yourſelf about to the right with the greater agility, and then let the net launch out into a pond: but take care that the threads, or meſhes of the net be not entangled with your buttons, leſt you be in danger of being drawn in after it.

CASTREL, } a kind of hawk which much reſem-
KASTREL, } bles the lanner in ſhape, but as to ſize is like the hobby: her game is the growſe, ſhe will alſo kill a partridge; but yet is a bird of a very cowardly nature, a ſlow goer aforehead, and therefore not much in uſe.

CAT, is a beaſt of prey, even the tame one; and ſaid to be of three kinds. 1. The tame cat. 2. The wild wood cat. 3. The mountain cat. The tame or domeſtic cat is diverſified with an almoſt infinite variety of colours and ſtreaks; but the natural colour, in a wild ſtate, is a brown tawney, variegated with ſtreaks of a whitiſh colour. In *France*, the cats are of a blueiſh lead colour, and in the north of *Europe* they are all over white.

All which are of one nature, pretty much of the ſame ſhape, but differ in ſize; the wild cat being much larger than the tame, and the mountain cat is larger than the wild cat.

The tame cat is a creature ſubtle and watchful, very familiar and loving to mankind, and an enemy to rats, mice, *&c.* which it ſeizes on as its prey.

Theſe animals uſually generate in the winter ſeaſon, making a great yawling or crying; go fifty-ſix days, or eight weeks, with young; bring forth ſeveral at a time: they cover their excrements, and love to keep their old habitations. *See* POLE-CAT.

CATARACT, is a malady in the eyes of an hawk not eaſily removed; and ſometimes incurable, when it is too thick, and of a long continuance.

It proceeds from groſs humours in the head, which frequently do not only dim, but extinguiſh the ſight; and ſometimes the hood is the cauſe of this miſchief.

The cure is to be effected, by ſcouring her two or three days with aloes or agaric: then take the powder of waſhed aloes, finely beaten, one ſcruple, and two ſcruples of ſugar candy; mingle theſe together, and with a quill blow it into the hawk's affected eye three or four times a day.

This is the gentleſt, and moſt ſovereign medicine of any yet known; but if this will not do, you muſt uſe ſtronger remedies, as the juice of celandine-roots, bathing their eyes often with warm roſe-water, in which the ſeed of fenugreek has been boiled.

CATARACTS are alſo called moon eyes, and lunatic eyes. About the age of five or ſix, the ſymptoms of a lippitude come on; they continue to come and go while the cataract ripens, which is uſually two years: at this time all pain in, and running from the eyes abates, and the horſe goes blind.

Sometimes the cataract forms itſelf without any preceding lippitude; it is then called a dry cataract; in this caſe the eye is not ſhut up with the ſwelling, but it appears cloudy, and the horſe cannot ſee very diſtinctly.

Sometimes the eye appears ſunk, and as if it was waſting; then the cataract is uſually a long time in forming, and the other eye, for the moſt part, continues good, though in all other inſtances, when one eye goes, the other ſoon follows.

A cataract differs in colour; for it ſometimes is white, pearl-colour, yellow, black, or greeniſh.

Dr. BRACKEN is of opinion, that only the two former of theſe are curable, and that not by any outward or inward application; but by manual operation with the needle, which turns off the laminæ of the cryſtalline that are diſeaſed, and then the rays of light are admitted through the remaining parts. If other methods are uſed, be they what they will, they may ſometimes help his ſight, ſo as to keep him out of ditches, and from running againſt walls, or ſuch like, but they will never cure a cataract. In ſhort, the only certain cure for cataracts, is to perform the operation called couching. But this cannot be performed by any but an expert ſurgeon, who underſtands the anatomical part of the eye, and who has been well uſed to the practice.

CATARRHS, IN SWINE: a diſorder to which they are frequently ſubject: the following are eſteemed the moſt effectual methods of cure:

Bruiſe liverwort, hen's dung, red ochre, dried ſloes, and polypodium root; boil them well in fair water, and give it warm, morning and evening, for two or three days.

Take half an ounce of brimſtone, and as much Burgundy pitch, hold his head by force over them whilſt burning on a chaffing-diſh of coals, after which give a drench of garlic, pepper, and rue, boiled in new ſmall-beer.

CATARRHS, IN SHEEP. *See* COUGH.

CATTLE, their good or bad qualities to diſcover. Upon view, if you ſuſpect any defect, gripe hard with your hand, on the back or withers, behind the ſhoulder, and this griping will cauſe ſo ſenſible a pain, if unſound, that the beaſt will ſhrink or tremble, ill enduring your gripe or pinch, and be ready to fall; but, if ſound and healthy, it will not flinch, or but very little.

If you buy lean cattle for fattening, ſee they are young; for, if old, they will not prove well, but rather your money and charge will be caſt away to little or no advantage. And, to know this, obſerve they are ſmooth, and often lick themſelves, that they want not their teeth, that their hides be thick and firm, ſhoulders and ribs broad; and, if the hair of their tail be broken, they will not feed kindly, but rather dwindle than increaſe in fleſh or fatneſs.

CATTLE, to fatten: the following is not only a cheap, but a ſpeedy method.

Put them into an agreeable paſture, and, as the ſeaſon is, give them chaff, rapes of grains, with the duſtings of meal, ſometimes chopped peaſe-hawm, offal turnips, cabbage or colewort leaves; if you perceive their ſtomachs fail, boil colewort leaves in vinegar or ſtale beer grounds, and drench them with it, and it will

recover

recover their appetite, and make them feed roundly; water them twice a-day at leaſt, if in winter, if you have an opportunity; but warm the water, and ſift ſome bran into it; and, to make them healthful, bruiſe cummin and anniſeeds, or carraway-ſeeds, and boil in their water once in four or five days. When they are houſed, keep their ſtalls dry and hard under foot, paved with ſtones or gravel, and ſloping, that the urine may run away; and have the windows to open, that they may have freſh air in ſuch convenient quantities as the ſeaſon requires; and by this uſage they will ſoon become fat.

CATTLE, afflicted with an unknown inward diſorder, to cure:

If you cannot find out the diſeaſe of the beaſt, take a quart of ale, a handful of wormwood, a handful of rue, and a handful of roſemary; all being bruiſed in a mortar, and then boiled, ſtrain the herbs forth very well, and add two ſpoonfuls of the juice of garlic, as much of the juice of houſeleek, and as much London treacle: mix them together, and give it to the beaſt milk warm.

Under cattle ſome include all quadrupeds which aſſociate, or go in herds, as ſheep, oxen, hogs, horſes, *&c.* Others define cattle to be all tame animals which graze: cattle are ſometimes divided into great, comprehending oxen, bulls, cows, calves, horſes, *&c.* and ſmall, including ſheep, lambs, goats, *&c.* BLACK CATTLE implies all of the Ox kind.

CAVALIER. One that underſtands horſes, and is practiſed in the art of riding them.

CAVEZON, a ſort of noſe-band, either of iron, leather, or wood, ſometimes flat, at other times hollow or twiſted, put on the noſe of a horſe, to wring it, and ſo forward the ſuppling and breaking of the horſe. An iron caveſon is a ſemicircle or band of iron, conſiſting of two or three pieces jointed by hinges, and mounted with a head ſtall, a throat band, and two ſtraps or reins with three rings; when we mean to make a horſe walk round a pillar, through the two ſide rings we paſs the two reins, which the rider holds in his hand, or makes faſt to the ſaddle, in order to keep the horſe's head in ſubjection, *&c.*

CAUTING-IRON, an iron with which farriers ſear thoſe parts of a horſe that require burning.

CAWKING-TIME, (in Falconry) a hawk's treading time.

CHACK, OR BEAT UPON THE HAND; a horſe is ſaid to chack, or beat upon the hand, when his head is not ſteady, but he toſſes up his noſe, and ſhakes it all of a ſudden, to avoid the ſubjection of the bridle. In order to fix and ſecure his head, you need only to put under his noſe-band a ſmall flat band of iron bended archwiſe, which anſwers to a martingal.

A CHASE, is a ſtation for wild beaſts of the foreſt: from which it differs in the following reſpects; that it may be in the poſſeſſion of a ſubject, which a foreſt, in its proper and true nature cannot; neither is it commonly ſo large, nor endowed with ſo many liberties, at the courts of attachment, ſwainmote, juſtice ſeat of eyre, *&c.* On the other hand, a chaſe differs from a park, for that it is of a larger compaſs, having a great variety of game, and more overſeers, or keepers. —For beaſt of the chaſe, and the terms uſed, ſee the Article TERMS.

What ſort of Chaſe is moſt proper firſt to train a Hunting-horſe to.

Some would have a horſe that is deſigned either for a buck-hunter or fox-hunter, to be uſed at firſt, and trained up in that ſort of exerciſe; others are of opinion, that thoſe chaſes are too violent for a young horſe, and therefore chuſe to train him after harriers: which laſt ſeems to be the moſt eligible.

As for the ſtag, buck, and hind, there is not much difference in the hunting of them; ſo that the inconveniences from each chaſe are in a manner the ſame alſo: for whichſoever you hunt, it is either in covert, or at force.

If a deer be hunted in a park, they uſually chuſe the moſt woody parts of it, as a refuge from the purſuits of their enemies; which is both unpleaſant to the rider, and troubleſome to the horſe to follow the dogs through the thick buſhes; and beſides, in parks the ground is uſually full of mole-banks, trenches, *&c.* which is dangerous for a young horſe to gallop on, till he has attained to ſome perfection in his ſtroke.

But if they be turned out of the park, and hunted at force, you will find, that as ſoon as you have unharboured or rouzed them, they will immediately make out end-ways before the hounds, five or ſix, nay ſometimes ten miles; they following in full cry, ſo ſwiftly, that a horſe muſt be compelled to run up and down hill without intermiſſion, leaping hedge, ditch, and dale; nay, often croſſing rivers to the great danger of the rider, as well as of the horſe. So that it ſhould ſeem altogether improper to put a young horſe to ſuch violent labour at the firſt, till he hath been inured to hard ſervice by practice and degrees.

And beſides, the ſeaſon for theſe chaſes beginning about *Midſummer*, and ending at *Holyrood-tide*, is a part of the year in which the ſun's heat is exceſſive; that beſides the ſwiftneſs and violence of this chaſe, and the danger of cracking his wind, and burſting his belly; (and the ſtraining of his limbs by ſuch deſperate riding, and creating in a young horſe a loathſomeneſs to his labour, by undergoing ſuch violent and unuſual ſervice;) the ſun's exceſſive heat does ſo ſcorch the earth, that a violent chaſe would hazard the melting of his greaſe: and the weight of the rider, by reaſon of the hardneſs of the ground, would occaſion foundering, ſplints, and windgalls; inſomuch, that in a ſhort time the horſe would prove altogether uſeleſs.

Horſes employed in this violent exerciſe, ſhould be ſuch as have been trained to hunting by long practice and experience.

Young horſes, (ſays the Duke of NEWCASTLE) being as ſubject to diſeaſes as young children, therefore he adviſes, that any man that would buy an horſe for uſe in his ordinary occaſions, as for journies, hawking, or hunting, ſhould never buy a horſe till the mark be out of his mouth; and if he be ſound of wind, limb, and ſight, he will laſt eight or nine years, with good keeping,

and never fail you: and therefore, (he adds) I am always ready to buy for ſuch purpoſes, an old nag, of ſome huntſman or falconer, that is ſound, and that is the uſeful nag: for he gallops on all grounds, leaps over hedges and ditches; and ſuch an one will not fail you in your journey, or any where, and is the only nag of uſe for pleaſure or journey.

The next chaſe is that of the fox; which although it is a recreation much in uſe, and highly applauded by the generality of the nobility and gentry, yet is inconvenient for the training a young horſe; it being ſwift without reſpite, and of a long continuance too; both which are diſtaſteful to the horſe: but the greateſt incovenience that happens to a horſe in this caſe is, that when a fox is unkennelled, he ſeldom or never betakes himſelf to a champaign country, but remains in the ſtrongeſt coverts and thickeſt woods: ſo that a horſe can have but little pleaſure in accompanying the hounds, without the riſk of being ſtubbed, or ſome ſuch dangerous accident.

The fitteſt horſes for this chaſe, are horſes of great ſtrength and ability: this chaſe beginning at *Chriſtmas*, which is the worſt time of riding, and ends at *Lady-day*, when the ground is beſt for it.

The next chaſe is the otter; which is not convenient for a horſe, becauſe he that will truly purſue this amphibious animal, muſt often ſwim his horſe, to the equal hazard, both of the rider and the horſe.

The hare, therefore, is the beſt chaſe both for pleaſure and delight.

It is indeed ſwift, and of ſome endurance, like that of the fox, but far more pleaſant to the horſe, becauſe hares commonly run the champaign country: and the ſcent not being ſo hot as that of the fox, the dogs are oftener at default, and by that means the horſe has many ſobs; by which he recovers wind, and regains ſtrength.

This chaſe begins at *Michaelmas*, and laſts till the end of *February*.

The beſt dogs to bring a horſe to perfection of wind, and ſpeed, are fleet northern hounds; for they, by means of their hard running, will draw him up to that extraordinary ſpeed, that he will not have time to loiter; and by continual practice, will be inured and habituated to the violence of their ſpeed, that in a ſhort time he will be able to ride on all ſorts of ground, and be at ſuch command upon the hand, that he will ſtrike at what rate you pleaſe: and three quarters ſpeed will be leſs troubleſome to him than a *Canterbury* gallop.

This may probably be one of the reaſons why your northern breeders, for the generality, excel thoſe of the ſouth; ſince certainly the ſpeed of their hounds contributes much to the excellence of their horſes, and renders them able to endure a four mile courſe without ſobs; which ſome horſemen call running.

CHAFFINCH, a ſinging bird, that takes its name from its delight in chaff; and by ſome admired for its ſong, though it has not much pleaſantneſs or ſweetneſs in it.

They are caught in plenty in flight time; but their neſts are rarely found, though they breed in hedges and trees of all ſorts, and make them of moſs and wool, or any thing almoſt they can gather up: they have young ones twice or thrice a year, which are ſeldom bred from their neſt, as being a bird not apt to take another bird's ſong, nor to whiſtle; ſo that it is beſt to leave the old ones to bring them up.

The *Eſſex* finches are generally allowed to be the beſt ſort, both for length of ſong and variety, they ending with ſeveral notes that are very pretty.

It is an hardy bird, and will live almoſt upon any ſeeds, none coming amiſs to him; and he is ſeldom ſubject to any diſeaſe, as the canary-bird and linnet are; but he will be very louſy, if not ſprinkled with a little wine, two or three times a month.

CHAFFING, IN HORSES, to prevent.

A ſore back is very common upon the road in travelling, and more eſpecially in young horſes, whoſe backs are unuſed to carry loads; therefore, to theſe laſt, a pretty large ſeated ſaddle agrees beſt; and, every morning, alter your crupper a hole or two, that it may thereby draw the ſaddle back, and now and then let it alſo have liberty forwards, and by this means he will not carry your weight always in the ſame places, which will conduce greatly to his eaſe, and keep the ſkin upon his back.

Let your horſe's back be cooled every time you bait him, and now and then waſhed with warm water, and wiped dry with a linen cloth; and the ſaddle ſhould alſo be ſcraped, ſo that no hardneſs nor inequalities remain from the ſweat, which together with the duſt, ſticks round the ſeat on the pannel.

When a horſe's back is once much inflamed, I doubt, it will be too late to keep the ſkin on upon the journey; however, alter the preſſure of the ſaddle, ſo as the parts leaſt heated may bear the burden, and that equally. Then uſe ſalt and water, warm urine, vinegar, &c. for theſe are commonly uſed to cool a horſe's back that is hurt; but, if the ſkin be broke in holes, from what people call warbles, I believe it will be found, that equal quantities of ſpirits of wine, and tincture of myrrh and aloes, with a little oil of turpentine, will be beſt to bathe the places with now and then. There will be holes or ſmall wounds in the tumours, called warbles, before ſome people would imagine it; therefore uſe the ſaid tincture, and, with care, you may proceed upon your journey; I ſay, with care, becauſe you ſhould look at your horſe's back often, and not hang upon him, ſo as to make the inflammation ſpread; therefore, for this end, it is beſt to walk on foot awhile every hour, and bathe the horſe's back with ſalt and water, vinegar, or any other thing, that is an enemy to putrefaction, till ſuch time as the hide will bear preſſing without inflammation; which it will do, by continuing this method for ſome time.

CHALLENGED COCK-FIGHT, is generally to meet with ten ſtaves of cocks, and to make one of them twenty-one battles, (more or leſs) the odd battle to have the maſtery.

CHALLENGING, (hunting-term) is uſed of hounds and beagles, when at firſt finding the ſcent of their game, they preſently open and cry: the huntſmen then ſay, they challenge.

CHANFRIN, is the fore part of a horſe's head, extending

extending from under the ears, along the interval between the eye-brows, down to his nose.

CHANFRIN-BLANCE. *See* STAR, or BLAZE.

CHANGE A HORSE, OR CHANGE HAND; is to turn or bear the horse's head from one hand to the other, from the right to the left, and from the left to the right.

You should never change your horse, without pushing him forward upon the turn; and after the turn, push him on straight, in order to a stop.

This horse changes from the right with an ugly grace. *See* ENTIRE, NAILS WALK, and a PASSADE of five times.

CHANNEL OF A HORSE, is the hollow between the two bars, or the nether jaw bones, in which the tongue is lodged: for this purpose it should be large enough, that it be not pressed with the bitt mouth, which should have a liberty in the middle of it.

CHAPE (with hunters) the tip at the end of a fox's tail; so called, as the tail itself is termed breach, drag, or brush.

CHAPELET, is a couple of stirrup-leathers, mounted each of them with a stirrup, and jointed at top in a sort of leather buckle, called the head of the chapelet, by which they are made fast to the pommel of the saddle, after being adjusted to the rider's length and bearing: they are used, to avoid the trouble of taking up or letting down the stirrups, every time that a gentleman mounts on a different horse and saddle, and to supply the want in the academy saddle, which have no stirrup to them.

CHAPERON OF A BITT-MOUTH, is a word only used for scatch-mouths, and all others that are not cannon-mouths, signifying the end of the bitt that joins to the branch, just by the banquet.

In scatch-mouths the chaperon is round, but in others it is oval; and the same part that in scatched, and other mouths, is called chaperon, is in cannon-mouths called, froncean.

CHARBON (*i. e.* coal) is an obsolete French word; signifying that little black spot, or mark, that remains after a large spot, in the cavity of the corner teeth of a horse, about the seventh or eighth year, when the cavity fills, and the tooth, being smooth and equal, is said to be raised.

CHARGE, is a preparation of an ointment, of the consistence of a thick decoction, applied to the shoulders, splaits, inflammations, and sprains of horses.

The parts affected are rubbed and chafed with this composition, after which you may cover them with sinking paper, if you will.

Charges are made two ways, *viz.* either with emmiellures, *i. e.* a mixture of honey, turpentine, suet, and other drugs; or with remolade, which is a mixture of the lees of wine with the drugs of emmiellure.

Farriers confound the names of charge emmiellures and remolade, and indifferently use one for the other.

CHASTISEMENTS, OR CORRECTIONS; are those severe and rigorous effects of the aids; for when the aids are given with severity, they become punishments.

CHAUSSE TROP-HAUT; a white-footed horse is said to be such, when the white makes run too high upon the legs.

CHECK (in Falconry) is a term used of a hawk when she forsakes her proper game, to fly at pyes, crows, rooks, or the like, crossing her in her flight.

CHEST-FOUNDERING, IN HORSES: this proceeds generally from hard labour, whereby the horse becomes surfeited; so that upon the whole it is no more than a severe cold, and is to be managed accordingly.

When a horse is chest-foundered, his coat will stare, and his flanks will heave more than common. Moderate bleeding is the best, in order to ease his difficulty of breathing; but I would not advise the opening his flank-veins or those on the inside of the thigh, for that is seldom attended with any good effect.

Take oil of petre half an ounce, mix it with an ounce of the oil of chamomile; and so proportionably a greater quantity, as you see occasion, and bathe the breast with a hot woollen cloth; and, when you have in that manner chafed it as well as you can, run a hot iron over it to make it sink into the skin; do this twice or thrice, and give the horse a quarter of a pint of sallad-oil, and the like quantity of aqua-vitæ, warmed and well mixed together over a gentle fire. *See* FOUNDERING.

CHEST-TRAPS, a kind of boxes or traps, used to take pole-cats, fitchets, martens, and the like vermin, that are injurious to warrens, dove houses, or hen roosts: the first of them being with a single, and the other with a double entrance, are represented thus: Now for the making and using them, take three pieces of oak or elm-board, of an equal bigness, like to that which is in Plate IV. Fig. 2. with A, B, C, D: let them be four feet long, one over, and about an inch thick; which nail together just like a coffin, and close up one end with a piece of the board, which must be nailed fast on, as A C E F; likewise nail over three main boards, another piece, as A, F, G, H, which must be as large as any of the rest, but not so long by two parts in three: and for the rest of the covering, you must have another piece of the same board: on the other side of the boards make a little hole with a gimblet, at the places marked G, H, where fasten two nails, that may be driven into the board that lies on the top, so as to serve for sockets, or as the axle of a coach: so that the board may easily be lifted up and let down: and at the other end I K, nail another piece of timber, just equal to that marked A, F, G, H, which must only be fastened to the upper boards in such manner, that being let down, the whole may seem to be a chest close shut; then get two pieces of wood, as L, M, P, Q, two feet long, and one inch and a half thick, and pierced at the end L, M, with a hole big enough to turn one's little finger in; nail these on the two side boards, about the middle of them, just opposite to each other, with a piece of wood an inch square, shaped at both ends like an axletree, which put easily into the two holes L, M; at the middle of the said axletree, frame a mortice or hole to fasten and tie a stick O, N, which may fall down upon the moving plank, when it

is let down; and this is intended to prevent any beaſt from lifting up the cover when once it is down.

Before you nail all the boards together, make a hole in that plank marked A, B C D, at the place marked U, X; which hole ſhould be two inches long, and half an inch over, juſt oppoſite thereto, and in the other plank bore a little hole with a gimblet as at R, that you may put in a ſmall cord; at the end whereof you tie your tricker R, N, S, N, T, made of a ſtick as big as one's little finger, which though faſtened at the end R, may however have liberty enough to move up and down, and muſt paſs through the hole U, about two inches out, with a notch or two at T; about the end of it tie your bait on this tricker within the cheſt trap, which ought to be appropriated to the nature of the beaſt, or vermin, you intend to take.

For the ſetting this trap, you muſt have a ſtrong cord upon the moving plank, near the middle of it marked Y; towards the end at the other end of the ſaid cord, tie a ſmall ſtick marked U, an inch and half long, and half as big as one's finger, formed at one end like a wedge, ſo the trap being lifted half a foot as you ſee it repreſented in the figure, and the cord which paſſeth over the axletree, Z, O, the little ſtick may have one end in the notch T of your tricker, and the other end in the hole X, and then is your trap or engine ſet right as it ſhould be: if your tricker be a quarter of an inch clear from the bottom when any vermin are once in, and gives but one touch to the bait, which is on the tricker that gives way, down falls the moving plank with the door faſt ſhut.

The other trap with the double entrance is much the beſt, becauſe the vermin you intend to take may ſee through it to behold the prey, and come in at which ſide they pleaſe, and therefore will ſooner venture.

It is made much after the ſame manner with the former, having two turning planks, and the tricker ought to be in the middle at Z: ſo there needs no farther directions to be given about it. *See* Plate IV. Fig. 2.

CHEVALER: (a French word) a horſe is ſaid to chevaler, when in paſſaging upon a walk or a trot his far fore leg croſſes or overlaps the other fore leg every ſecond motion. *See* To PASSAGE.

CHEVIN } A freſh water fiſh, having a great
CHUB-FISH } head.

CHEVIN-FISHING, this fiſh ſpawns in *March*, is very ſtrong, though inactive, yielding in a very little time after he is ſtruck, and the larger he is, the more quietly he is taken.

As for his food, he loves all ſorts of worms and flies, alſo cheeſe, grain, black worms, their bellies being ſlit that white may appear. He affects a large bait, and variety of them at one hook; but more particularly he delights in the pith that grows in the bone of an ox's back; but you muſt take care to keep off the tough outward ſkin, without breaking the inward tender one.

This fiſh is to be angled for early in the morning with ſnails; but in the heat of the day, make uſe of ſome other bait, and in the afternoon fiſh for him at ground or fly; of the laſt of which there is none he covets more than a great moth with a large head, whoſe body is yellow, with whitiſh wings, which is commonly found in gardens about the evening.

CHEWING BALLS FOR HORSES: theſe balls are uſed for reſtoring loſt appetite, an infirmity to which horſes are very incident, proceeding from a ſalt humour, and bitter phlegm, which obſtructs the paſſage of the throat, and makes them loath their food.

The compoſition of theſe balls is as follows:

Take a pound of aſſa-fœtida, as much liver of antimony, and half a pound of the wood of a bay-tree, an equal quantity of juniper wood, and two ounces of pellitory of *Spain*.

Pound all the ingredients apart to a groſs powder, in order to which the woods muſt be firſt very well dried, then put them all together in a mortar, and incorporate them with a large quantity of good grape verjuice well clarified, pouring it in by degrees, till they are reduced to a maſs, of which make balls of an ounce and an half, and dry them in the ſun: wrap one of theſe balls in a linen clout, and tying a thread thereto make the horſe chew it for two hours in the morning; and he will eat as ſoon as you unbridle him: do the ſame at night, and continue this method till the horſe recovers his appetite.

When one ball is conſumed put in another.

Theſe balls may be uſed on the road, as you travel, being tied to the bridle; balls of *Venice* treacle may be uſed in the ſame manner with good ſucceſs.

CHINE, MOURNING OF. This is cauſed by ſuddenly cooling upon exceſſive heats, ſtanding in damp or wet places, or eating ſuch things as turn to raw humours, which, falling upon the liver and lungs, frequently inflame or putrefy them, ſo that they occaſion the horſe, by defect of their office, to fall down ſuddenly and die; therefore, when you by any trembling or dulneſs ſuſpect this grievance, uſe the following cure.

Let your horſe blood; and, having chafed him well, take olive-oil and verjuice, of each two ounces; the juice of celandine, and powder of elecampane root, of each an ounce; warm them a little; and, tying his head up to the rack, pour them into his noſtrils, ſtopping them cloſe after it, that he may be forced to ſneeze and ſtrain to caſt it out; after which, having an ounce of the powder of rhubarb heated in a pint of canary, give it him in a drenching-horn, as hot as he can well endure it, and ſo uſe him each morning for a week together, and the bad humours will go off.

CHOLER, OR SHARPNESS OF URINE, IN HORSES: if you ſee the ſkin yellow or bluiſh, theſe humours abound, and cauſe a feveriſh heat: to reduce them obſerve the following directions:

Take a handful of elder-leaves, an ounce of the ſeeds of peony, or, for want of elder leaves, elder-bark; bruiſe and ſeethe them in a pint of ale, and give warm.

Or,

Take of turbith, an ounce; ginger, cinnamon, maſtic, galingal, and aloes hepatic, of each half an ounce; diagridium, rhubarb, and ſenna, of each a drachm: dry, bruiſe, and make them into a powder, giving the horſe the whole quantity at two doſes in warm ale or milk.

CHOLIC:

CHOLIC: when a horſe has this pain violently, it is as dangerous as the ſtaggers, and care muſt be taken of the firſt approaches of the diſorder; for, when it comes to that degree which the farriers call convulſions of the bowels, and which is much the ſame with what we call a twiſting of the guts, the caſe is nearly deſperate.

In the firſt approaches of the cholic, the horſe's belly may be perceived to be ſwelled, he looks uneaſy, lies down, rolls himſelf about, and gets up again; and his mouth is hot, and his eyes look red. After it is come to the more deſperate ſtate, he ſtamps furiouſly upon the ground, rubs his ſides hard againſt the wall, ſtretches out his legs and neck, and gives all poſſible ſigns of the greateſt uneaſineſs.

This diſorder is generally occaſioned by the creature's eating too greedily of coarſe green food, and ſometimes by ſudden cold when he is hot; ſometimes alſo by the eating unwholeſome herbs, as theſe creatures will do when they come into freſh paſtures, though they would not touch the ſame plants in thoſe grounds where they have been uſed to feed. Very often the following medicine will produce a cure.

Scald ſome bran, and put to it a tea-ſpoon full of oil of anniſeed; ſtir it together, and give it warm. If this does not anſwer, diſſolve a quarter of an ounce of philonium romanum in a pint of peppermint-water, and give this for a drench. In caſe this fails, recourſe muſt be had to clyſters. Boil two handfuls of mallow-leaves, and a quarter of a pound of cummin-ſeed, in three quarts of water, for a quarter of an hour; put to this a quarter of a pound of ſugar: then ſtrain it off, and add a quarter of a pint of ſallad-oil, and two ſpoonfuls of oil of turpentine. This muſt be given warm, and the horſe muſt be walked gently after it. After which give him clean hay, warm water, and bran; and, if he does not grow well directly upon this, repeat the doſe of philonium romanum once in eight hours, and put oil of anniſeed in all his bran.

When his caſe is come to the worſt before care is taken, or the worſt ſymptoms come on in ſpite of theſe remedies, the horſe muſt be blooded. Then, inſtead of the philonium and peppermint-water, give it to him thus:

Diſſolve a drachm and a half of the philonium in a pint of mountain wine; add to it a quarter of a pint of ſallad oil, and a tea-ſpoon full of ſpirit of ſal-ammoniac; give this as a drench, and ride the horſe gently half an hour after he has taken it. If this does not ſucceed, mix a grated nutmeg, and a quarter of an ounce of jalap, in a quarter of a pint of gin; add half a quartern of ſweet-oil, and give it him as a drench. One or other of theſe muſt be given once in three hours, and repeat the clyſter as often as he ſeems violently in pain. He muſt be ridden ſoftly about at times; and by this means the fit, if it be ever ſo bad, will be carried off. But care muſt be taken that it does not return; and this will be chiefly prevented by giving him only very good dry food, ſcalded bran, warm water, and ſometimes a little anniſeed mixed with the bran.

The following balls and clyſters for the windy-cholic may be given with ſafety: viz.

Firſt ball for the windy-cholic.—Take fennel ſeeds, powder of aniſe and cummin, of each half an ounce; two drachms of camphire; fifty drops of oil of juniper, and one drachm of pellitory of the wall: make all theſe into a ball with any kind of ſyrup, and waſh it down with about a horn and a half of ale.

Second ball for the windy-cholic, when attended with the ſtranguary.—Take ſal-prunella one ounce, Venice-turpentine and juniper-berries powdered, of each half an ounce, oil of juniper one drachm, and ſalt of tartar two drachms; make theſe into a ball, and waſh it down with ale. Theſe balls may be repeated till they are effectual, and the horſe may be walked about. I would alſo recommend the following clyſter to be adminiſtered between the balls; that is, after the firſt and ſecond ball. The clyſter is:

Take half an ounce of long-pepper, two handfuls of chamomile flowers, aniſe, coriander, and fennel, ſeeds, of each an ounce; boil theſe in three quarts of water till they are reduced to two, and then add half a pint of gin, eight ounces of oil of chamomile, and half an ounce of oil of amber.

I ſhall now give two or three receipts for drinks, compoſed of articles eaſily procured.

I. Take Venice-turpentine, diſſolved with the yolk of an egg, ſix drachms; Caſtile-ſoap, or hard ſoap, one ounce; nitre, or ſaltpetre, one ounce; juniper-berries, and ginger, each half an ounce. Mix theſe with about a quart of warm ale, and a large onion boiled in them; and you may repeat this two or three times, as you find it neceſſary.

II. Take Daffy's-elixir and ſallad oil, of each half a pint; and of philonium one ounce and a half. This ſhould be given warm, and repeated if neceſſary.

I ſhall, in the next place, deſcribe the dry cholic, or gripes, which frequently ariſes from coſtiveneſs; this is diſcovered by the horſe's fruitleſs and frequent attempts to dung, the quick motion of his tail, the high colour of his urine, and if he can dung, it will be very black and hard; in this caſe, an emollient oily clyſter ſhould be uſed twice a-day, and the following purging drink:

Take of ſenna three ounces, ſalt of tartar half an ounce; infuſe theſe in a quart of boiling water an hour or two; then ſtrain it off, and add four ounces of Glauber's ſalts and two ounces of lenitive electuary.

The inflammatory or bilious cholic is the laſt ſort to which a horſe is ſubject. Moſt of the ſymptoms attending the windy cholic will be found in the dry; and in this is ſuperadded, a great heat, panting, and dryneſs of the mouth. In this caſe copious bleeding is preſcribed, at leaſt two quarts; and this ſhould be repeated, if the ſymptoms do not abate; the emollient clyſter, with two ounces of nitre diſſolved in it, ſhould be thrown up twice a-day, and this will cool his inflamed bowels. And give him the ſame cooling purging-drink as is preſcribed for the dry gripes. *See* GRIPES.

CHOPS, CLEFTS, RIFTS, are maladies in the palate of a horſe's mouth, cauſed either by coarſe and rough hay, full of thiſtles and other prickly

prickly ſtuff; or by foul provender, full of ſharp ſeeds; which by frequent pricking the bars of his mouth, cauſes them to wrinkle and breed corrupt blood, which may turn to a canker: which if it ſhould come to that, it is to be cured as a canker: but to prevent it, waſh his mouth with vinegar and ſalt, and anoint it with honey.

And for the removing of theſe diſtempers, pull out his tongue, ſlice it with an inciſion-knife, and thruſt out the kernels, or corruption, then waſh the parts as before directed.

But to prevent their coming at all, the beſt way is to waſh his mouth or tongue often with wine, beer, or ale, and ſo bliſters will not breed in it, or any other diſeaſe.

CHOPS, } do alſo often happen in a horſe's legs,
CRACKS, } on the bought of the paſtern, accompanied with pain, and a very noiſome ſtench, which is ſometimes cauſed by a ſharp and malignant humour that frets the ſkin.

The cure may be effected by firſt ſhaving away the hair from the complaint, in order to keep it clean, and applying the white honey charge, or coachman's ointment, which will ſpeedily heal the chops, if the application be conſtantly renewed. *See* CRACKS.

CHUB FISHING. This fiſh is full of ſmall forked bones, diſperſed every where through his body; eats very wateriſh, and being not firm, is in a manner taſteleſs: it is the beſt of any to entertain a young angler, as being eaſily taken: in order to which you muſt look out for ſome hole, where you ſhall have twenty or more of them together in a hot day, floating almoſt on the ſurface of the water.

Let your rod be ſtrong and long, your line not above a yard long and very ſtrong, baited with a graſshopper, which bob up and down at the top of the water, and if there be any chubs they will riſe.

But you muſt place yourſelf ſo as not to be ſeen, for the chub is a timorous fiſh, and the leaſt ſhadow will make him ſink to the bottom; though he will riſe again ſuddenly, and this is called bobbing.

When your hook is baited, drop it gently about two feet before the chub you have pitched upon by your eye to be the beſt and faireſt, and he will inſtantly bite greedily, and be held faſt, for he is a leather-mouthed fiſh, ſo that he can ſeldom break his hold; and therefore it will be beſt to give him play enough, and tire him; or otherwiſe you may endanger your line.

If you cannot get a graſshopper, you muſt bait your hook with any kind of fly or worm, and if you will fiſh with a fly, graſshopper, or beetle, it muſt be at the top of the water: but if with other baits, underneath it.

In *March* and *April* you ſhould angle for the chub with worms; in *June* and *July*, with flies, ſnails, and cherries; but in *Auguſt* and *September*, uſe a paſte made with Parmeſan or Holland cheeſe, pounded in a mortar with ſaffron; adding to it a little butter.

Some uſe a paſte made of cheeſe and turpentine for the winter ſeaſon, at which time the chub is in his prime: for then his forked bones are either loſt, or turned into griſtles; and his fleſh is excellent meat, baked; his ſpawn is admirable; and if he be large, the throat, when the head is well waſhed, is the beſt part of the fiſh.

However, in hot weather you muſt angle for this fiſh in the middle of the water, or near the top of it; but in cold weather, near the bottom.

CHUSING OF DOGS: in order to chuſe a dog and a bitch for good whelps, take care that the bitch come of a generous kind, be well proportioned, having large ribs and flanks; and likewiſe that the dog be of a good breed, and young: for a young dog, and an old bitch, breed excellent whelps.

The beſt time for hounds, nitches, or bratchets to be lined in, are the months of *January*, *February*, and *March*.

The bitch ſhould be uſed to a kennel, that ſhe may like it after her whelping, and ſhe ought to be kept warm.

Let the whelps be weaned after two months old; and though it be ſome difficulty to chuſe a whelp under the dam, that will prove the beſt of the litter, yet ſome approve that which is laſt, and account him to be the beſt.

Others remove the whelps from the kennel, and lay them ſeveral and apart one from the other; then they watch which of them the bitch firſt takes and carries into her kennel again, and that they ſuppoſe to be the beſt.

Others again imagine that which weighs leaſt when it ſucks to be the beſt: this is certain, that the lighter whelp will prove the ſwifter.

As ſoon as the bitch has littered, it is proper to chuſe them you intend to preſerve, and drown the reſt; keep the black, brown, or of one colour; for the ſpotted are not much to be eſteemed, though of hounds the ſpotted are to be valued.

Hounds for chaſe are to be choſen by their colours: the white with black ears, and a black ſpot at the ſetting on of the tail, are the moſt principal to compoſe a kennel of, and of good ſcent and condition.

The black hound, or the black tanned, or the all-liver coloured, or all white: the true talbots are the beſt for the ſtronger line: the grizzled, whether mixed or unmixed, ſo they be ſhag-haired, are the beſt verminers, and a couple of theſe are proper for a kennel.

In ſhort, take theſe marks of a good hound; that his head be of a middle proportion, rather long than round; his noſtrils wide, his ears large, his back bowed, his filler great, haunches large, thighs well truſſed, hams ſtraight, tail big near the reins, the reſt ſlender; the leg big, the ſole of the foot dry, and in the form of that of a fox, with large claws.

CINQUE PORT, a ſquare net reſembling a cage, taking its name from the five entrances into it: it is of excellent uſe for any pond or river, ſwift or ſtanding water, for catching of fiſh, and the way to ſet it is repreſented in the figure.

To make uſe of this net, provide four ſtraight, ſtrong poles, anſwerable in length to the depth of the water; ſharpen the great ends like ſtakes, and notch them within a foot of the ends, to faſten the four corners of the

the net, as E F G H; make the little notches on the ſame poles at a convenient diſtance, for the faſtening the four upper corners in the ſame manner, as A B C D. *See* Plate IV. Fig. 3.

The bottom of the net is four ſquare, without any entrance; in order to place this with the greater conveniency, get a boat to put the net in the water, for the poles muſt be driven faſt in the ground, and at ſuch a proper diſtance, that the net may be ſtretched out ſtiff, each pole anſwering to his fellow in an exact direct line; and this may ſuffice in any ſtanding water; but if it be in a ſwift ſtream, the motion of the water will always move the net, and ſo frighten away the fiſh.

Now in order to prevent this inconvenience, faſten ſome ſtrong ſticks at the very top of the four poles, to ſtraighten and ſtrengthen one another, and to keep all tight; as for example, obſerve the ſame pointed and marked with little *a*, *b*, *c*, *d*, and you will eaſily comprehend it; but then if you faſten two others croſsways from A, *a*, unto great D and little *d*, and from C, *c*, to great B, and little *c*: you need not fear it, for the water can have no power over it. *See* Plate IV. Fig. 3.

CLAP, (in Falconry) the nether part of a hawk's beak.

CLAP-NET, AND LOOKING-GLASS, otherwiſe called doring or daring, is a device to catch larks with; for which end you are to provide four ſticks, very ſtraight and light, about the bigneſs of a pike, two of which ſhould be four feet nine inches long, and ſhould all be notched at the ends, as in the figure of theſe ſticks marked with the little *a* and *b*; at the end *b*, faſten on one ſide a ſtick of about a foot long, of the ſame bigneſs with the other four ſticks, and on the other ſide a ſmall peg of wood, marked A, three inches long; then get four ſticks more, each a foot long, as the letter *f*, each muſt have a cord nine feet long, faſtened at the bigger end thereof, as *e*, *f*; every one of them ſhould have a buckle at the end *e*, for the commodious faſtening of them to the reſpective ſticks, when you go about to ſpread your net, which is plainly repreſented in Plate IV. Fig. 5.

You are alſo to provide a cord, *a*, *k*, *b*, *g*, which muſt have two branches, *a*, *k*, one of them is to be nine feet and a half long, the other ten, with a buckle at each end; the reſt of the cord, from *b* to *g*, muſt be between twenty-two and twenty-four yards long; and all theſe cords, as well the long ones, as thoſe with the ſticks, ſhould be ſtrong twiſted, about the bigneſs of one's little finger. The next thing to be provided is a ſtaff, *m*, *n*, about four feet long, pointed at the end *m*; and at the end *n*, faſten a little ball of wood, for the convenient carrying of theſe many neceſſaries, in ſome ſacks or wallets; you muſt alſo have a ſmall iron ſpade to level the ground, as you ſee occaſion, and two ſmall rods, like that marked *l*, *m*, *n*, *o*, each eighteen inches long, having a great end L, and thereto a ſmall ſtick fixed, as *p*, with a packthread near the end of the ſaid rod; and about letter *m*, being about nine inches from it, tie another packthread with two ends, each hanging clear a foot long: at each end tie a little pecked ſtick, as *q*, *r*, and at the ſmaller end of the ſaid rod, tie a packthread with four doubles, which muſt form two loops, as *o*, which tie to the legs of ſome larks: you muſt have alſo two ſmall reels, as F, G, by the help whereof you may make the larks fly, as there is occaſion: the next thing you are to prepare, is a looking-glaſs: for which *ſee* LARK CATCHING.

When it is thus fixed, put a ſmall line into the hole *j*, and your glaſs is finiſhed; you muſt place it between the two nets, near the middle of them, at the letter *j*, and carry the line to the hedge, ſo that pulling the line you may make the looking-glaſs play in and out as children do a whirligig, made of an apple and a nut. Always keep it turning, that the twinkling of the glaſs againſt the ſun, may provoke the larks to come to view it.

When you intend to pitch your nets, be ſure to have the wind either in front or behind them, leſt if it be in either ſide, it hinders their playing: chuſe ſome open place, and let it be remote from trees or hedges, at leaſt an hundred paces; then the ground being clear from all ſtones and rubbiſh, ſpread the net after the manner expreſſed in the figure, *viz.* the longeſt ſticks faſtened to that part of the net which is largeſt; as for example, in the figure, that on your right hand is bigger than the other. You muſt drive the peg *e*, into the ground, and paſs the end *a*, of the ſtick, into the buckle of one of the cords of the net; and the peg *d*, into the other loop of the ſame end; alſo do the ſame to the other ſtick, at the end *l*, but before you drive your peg into the ground, ſtrain the cord *c*, *t*, as much as you can; then take two of the ſticks, as *f*, *e*, whereof one has a cord nine feet and a half long, and the other half a foot leſs: put the knot *e*, of the ſtrongeſt cord about the end of the farther ſtick, and retiring, drive your peg *f*, into the ground, juſt oppoſite to the two little pegs *c*, *t*: that done, come to the other end, paſs your ſtick *a*, into one of the ſhorter cords, and ſo drive your pegs juſt with the others, in a direct line, as *c*, *t*, *f*, that your cord, *a*, *e*, of the net, may be thoroughly ſtrained. Being thus directed to ſet one net, you cannot well fail to ſet the other; only obſerve ſo to place them, that when they are drawn, one may clap about half a foot over the other.

The next thing to be done is, to take the grand cord, which is to make your net play: place the large branch *a*, about the end of the ſtick *a*, and the other branch *k*, about the ſtick *k*; then tie the knot *b*, ſo that it may reſt in the middle, and carry the end to your lodge; ſtrain it a little, and faſten it with a peg A, and about B make ſome kind of hold-faſt, for the better ſtraining it, and that it may not ſlip again through your hands; juſt even with the ſaid hold-faſt, make two holes, D, E, in the ground, to thruſt againſt with your heels: as for your lodge, it muſt be made with boughs, in ſuch a manner, that you may have a full and clear view on your nets before; and the ſame ſhould be covered over head, and not very high, that you may have a proſpect of all birds coming and going.

The laſt thing upon this occaſion, is the placing your calls, (for ſo are the live larks termed here) and the figures direct you in what place to ſet them: ſet your little ſtick *p*, in the firſt place, and let the upper part

be about ſix inches out of the ground; then place the two others, *q*, *r*, on the right, and the other on the left, juſt at *m*, of the rod, where the cord of the ſaid pegs is fixt; that done, tie the end of one of the pack-threads of one of the reels, about three or four inches from *m*, near the place marked *n*, and carry your reel to the letter F; the like you muſt do with the other rod, tied at the end *o*, and at equal diſtances tie the call larks by the feet, ſo that when you ſee any birds near you, it is but twitching your cords, and you force the larks to mount a little, that thereby the others may take notice of them: and when they are within your diſtance, pull your main cord, and your net flies up, and claps over them.

CLAMPONNIER, OR CLAPONNIER; an obſolete word, ſignifying a long jointed horſe, that is, one whoſe paſterns are long, ſlender, and over pliant.

The word is properly applicable only to bulls or cows, for *la Claponnier*, in *French*, is in them, what the paſtern is in a horſe.

CLEAR WALK, a term relating to game cocks; and ſignifies the place that the fighting cock is in, and no other.

CLOSE, BEHIND, is a horſe whoſe hoofs come too cloſe together: ſuch horſes are commonly good ones.

To CLOSE A PASSADE JUSTLY, is when the horſe ends the paſſade with a demivolt, in good order, well narrowed and bounded, and terminates upon the ſame line upon which he parted, ſo that he is ſtill in a condition to part from the hand handſomely at every laſt time or motion of his demivolt.

CLOYED, } A term uſed by farriers of a horſe,
ACCLOYED, } when he has been pricked with a nail in ſhoeing.

CLYSTERS, general receipts for: adapted to particular diſorders in horſes.

For a peſtilential diſeaſe, occaſioned by a choleric, or fiery humour.—Take of the ſeeds of coloquintida, cleared from the huſks, half an ounce; the juice of centaury and wormwood, of each an ounce; caſtoreum, half the like quantity; juice of wood-ſorrel, two ounces; and half a pint of olive-oil; concoct them into two quarts of water, a little ſweetened with moiſt ſugar, and inject it into the horſe's body.

For any internal diſorder proceeding from melancholy.—Take anniſeeds and the ſeeds of mallows beaten to powder, of each an ounce: boil them with a ſmall quantity of ſavin in a quart of whey or ſkim-milk; then add a quarter of a pound of freſh butter, and, after having well ſtrained out the liquid part, adminiſter it as above, lukewarm.

For any internal diſtemper, occaſioned by ſanguine corrupt blood, or watry humours, by means of bad concoction or obſtruction, &c.—Take of the leaves and roots of marſh-mallows, a handful; of violet-leaves, double that quantity; linſeeds and coriander-ſeeds, of each a handful; white lily roots, an ounce; the juice of ſenna, the like quantity with the latter; boil them in two quarts of water, to the conſumption of a third part; and then add a pint of olive-oil, and give it to him warm.

An approved clyſter for ſickneſs in general.—Take of the oil of dill and chamomile, of each an ounce; the oil of caſſia, half an ounce; the juice of violet-leaves, two ounces; then, having concocted a good quantity of mallows into two quarts of water, ſtrain the liquid part, and put the before-mentioned ingredients therein, and adminiſter them blood-warm. This is ſingularly good, eſpecially in all violent diſeaſes.

In caſe of reſtringency, or hard binding.—Take a quarter of a pint of the juice of fumitory, two ounces of the ſyrup of roſes, as much of the oil of bays, half a pint of neat's-foot oil, and two ounces of the juice of mulberries; add to theſe a pint of new milk, and force it into the horſe's body; and ſo upon other like occaſions.

A receipt for an emollient clyſter.—Take one pint of linſeed oil, half a pound of Venice treacle, a large handful of marſhmallows, and the ſame quantity of chamomile-flowers, two ounces of bay berries and ſweet-fennel-ſeeds; put theſe ingredients into a gallon of water, and let it boil till it is reduced to three quarts, and apply it when properly cooled, taking particular care that it is not given too hot; and if the horſe be very coſtive, you may add four ounces of cream of tartar.

Horſes are at times ſo much troubled with convulſions, that their jaws are frequently locked up, conſequently they cannot receive much nouriſhment at the mouth. In order to ſave them from ſtarving, it muſt be adminiſtered elſewhere; in this caſe, which is rather extraordinary, you may give him by way of clyſter, about three pints of any mild broth, not too fat, made of ſheep's heads, trotters, or any other kind of nouriſhing food.

A receipt for a reſtringent clyſter.—To a pint of port-wine, add two ounces of jeſuit's bark, four ounces of diaſcordium, a handful of dry red-roſe leaves, and one ounce of balauſtines: let all theſe be boiled together in two quarts of water till they are reduced to one.

A receipt for a purging clyſter.—Take two or three handfuls of marſhmallows, one ounce of ſenna, half an ounce of bitter-apple, one ounce of bay-berries, one ounce of bruiſed anniſeed, and half an ounce of ſalt of tartar; boil theſe an hour in three quarts of water, and add four ounces of ſyrup of buckthorn, and half a pint of oil.

COACHMAN's OINTMENT. Take common honey and powder of copperas, of each a pound and a half, ſet them over a gentle fire in a pot, mixing them well together, by ſtirring them conſtantly till they boil: then take the pot off inſtantly, and when it is grown half cold, put in it an ounce of arſenic in powder, then ſet it on the fire again, ſtirring it continually, till it begins to boil; then take it off the fire immediately, and keep ſtirring it till it grows cold: but take care to avoid the noiſome ſmell.

Anoint the part ſlightly with this ointment once every two days, after it has been ſhaved and rubbed with a wiſp. This is good for ſore legs that are not gourdy, pains, mules, clefts, and rat-tails.

COCK: a domeſtic bird, and the male of the hen. It is the common opinion, that a cock ſhould never grow fat, and that he ought to ſupply a dozen hens, from which he is diſtinguiſhed by his ſpurs and comb: the eggs, which hens lay without being trod, muſt not be

be put to be hatched, for they will addle; cocks are gelt, when young, to make capons.

This bird, in general, is the moſt virile, ſtately, and majeſtic, of all others; and is very tame and familiar with mankind; naturally inclined to live in habitable houſes; he is hot and ſtrong in the act of generation, and delights in open plains, where he may lead forth his hens into green paſtures and under hedges, that they may warm and baſk themſelves in the ſun; for to be put up in walled places, and paved courts, is moſt unnatural to them, neither will they thrive.

Now, in the choice and ſhape of a dunghill-cock, he ſhould be, according to our Engliſh authors, of a large and well-proportioned body, long from his head to the rump, thick in the girth; his neck ſhould be long, looſe, erect, and high, as the pelican and other birds of prey are; his comb, wattles, and throat, large, of a great compaſs, ragged, and of a very ſcarlet red; his eyes round and large, the colour ſhould be anſwerable to the colour of his plume or mane, as grey with grey, red with red, and yellow with yellow; his bill crooked, ſharp, or ſtrongly ſet on his head; his mane or neck feathers very long, bright, and ſhining, covering from his neck to his ſhoulders; his legs ſtraight and of a ſtrong beam; with large long ſpurs, ſharp, and a little bending, and the colour black, yellow, or brownish; his claws ſtrong, ſhort, and well wrinkled; his tail long, bending back, and covering his body very cloſe, his wings very ſtrong; and, for the general colour of a dunghill-cock, he ſhould be red; he ſhould be valiant within his own walk; and, if he is a little knaviſh, ſo much the better; he ſhould be often crowing, and buſy in ſcratching the earth to find out worms and other food for his hens, and inviting them to eat.

COCK, GAME. The beſt properties for the choice of fighting-cocks, are their ſhape, colour, and courage, and ſharp heels or ſpurs. As to their ſhape, the middle-ſized ones are eſteemed the beſt, as being ſooneſt and eaſieſt matched, as alſo the nimbleſt, and, generally, of moſt courage; whereas, for the large ones, called the turn-pock, it is difficult to find their equal; beſides, they are, for the moſt part, heavy, not ſhewing that ſport in a battle: likewiſe the ſmall-ſized ones are weak and tedious in a battle.

He ſhould be of a proud and upright ſhape, with a ſmall head, a quick large eye, with a ſtrong back, crooked and big at the ſetting on the beam of his legs, very ſtrong, and, according to his plume, grey, blue, or yellow; his ſpurs long, rough, and ſharp, a little bending inwards.

The grey pile, yellow pile, or red, with the black breaſt, is eſteemed the beſt: the pied is not ſo good, and the white and dun worſt of all. If he is red about the head, like ſcarlet, it is a ſign of ſtrength, luſt, and courage; but, if pale, it is a ſign of faintneſs and ſickneſs.

His courage is ſhewn by his walk, treading, and pride of his going, and in pen by his frequent crowing; for the ſharpneſs of his heel, or, as the cock-maſters call it, the narrow-heel, is only ſeen in his fighting; for the cock is ſaid to be ſharp-heeled, or narrow-heeled, which, every time he riſes, hits and draws blood of his adverſary, gilding, as they term it, his ſpurs in blood, and every blow threatening the other's death.

And ſuch cocks are the beſt; for a ſharp-heeled cock, though he be a little falſe, is deemed much better than the trueſt cock that hath a dull heel, and hits ſeldom.

But that cock which is both hard and very ſharp-heeled, is to be eſteemed above others; therefore, in your choice, chooſe ſuch an one as is of a ſtrong ſhape, good colour, and of a moſt ſharp and ready heel.

Method of Breeding, &c.

The breeding of theſe cocks for battle is very different from thoſe of the dunghill; for they are like birds of prey, in which the female is of better eſteem than the male; and ſo, in the breeding of theſe cocks, be ſure that the hens be right, that is, they muſt be of a right plume, as grey, grizzle, ſpeckled, or yellowiſh. Black or brown is not amiſs, their bodies large, and well pouked behind for large eggs, and well tufted on the crowns, which ſhews good courage.

If they have weapons, it is the better; alſo they muſt be of a good courage, otherwiſe their chickens will not be good. And it is obſervable, that the perfect hen from a dunghill-cock will bring a good chicken; but the beſt cock from a dunghill-hen can never get a good one.

Thus having got a breed of perfect cocks and hens, the beſt ſeaſon of the year for to breed in is from the increaſe of the moon in *February* to her increaſe in *March*; for a *March* bird is of far greater eſteem than thoſe bred at other times.

Let the pen where ſhe ſits be placed warm, with ſoft ſweet ſtraw therein for her neſt, they being much tenderer than the dunghill-hens; and permit no other fowl to come where ſhe ſits, for that will diſturb her.

You ſhould obſerve, if ſhe be buſy in turning her eggs; if ſhe is, that is a good ſign, but, if not, do it at ſuch times as ſhe riſes from the neſt; and be ſure that ſhe has always meat and water by her, leſt when ſhe riſes ſhe ſhould ſtay long to ſeek food, and ſo her eggs be ſpoiled.

Likewiſe in the place where ſhe ſits let there be ſand, gravel, and fine-ſifted aſhes, to bathe and trim herſelf in at pleaſure.

In about three weeks ſhe will hatch; and obſerve, if ſhe covers and keeps the firſt chickens warm till the reſt are hatched, to take thoſe from her, and keep them warm in wool by the fire till all are hatched, and then put them under her, keeping both the hen and the chickens very warm, not ſuffering them to go abroad for three weeks or a month in the cold; for they are ſo tender, that the cold will kill them.

Let them have plenty of food, as oatmeal, cheeſe-parings, fine ſmall wheat, and the like, and a large room to walk in, with a boarded floor; for that of earth or brick is too cold or moiſt. After three or four weeks, let them walk in your court-yard, or garden, to pick worms, provided there are no ſinks or puddles of ſtinking water, which is as bad as poiſon for them

to drink, engendering corrupt diſeaſes. Keep them after this manner till you can know the cock chickens from the hens; and, when you perceive their combs or wattles to appear, cut them off, anoint the ſore with ſweet butter till well; and this will make them have fine, ſmall, ſlender, and ſmooth heads; whereas, if you let the combs grow to their bigneſs, and then cut them off, it will cauſe them to have gouty thick heads, with great lumps; neither is the flux of blood good, for the leaſt loſs of blood in a feathered fowl is very dangerous.

Let the cock-chickens go with their hens till they begin to fight one another; then ſeparate them into ſeveral walks, and that walk is the beſt that is freeſt from the reſort of others.

Let the feeding-places be upon ſoft dry ground, or upon boards; for to feed them upon pavements, or on plaiſter floors, will make their beaks blunt and weak, ſo that it will hinder their holding faſt. Any white corn, as oats, barley, or wheat, is good for a cock in his walk; ſo are toaſts or cruſts of bread ſteeped in drink or wine; for it will both ſcour and cool them inwardly.

If your chickens begin to crow at about ſix months old, clear and loud, or at unſeaſonable times, it is a ſign of cowardice and falſehood, ſo that they are not worth the rearing; for the true cock is very long before he can get his voice, and then he obſerves his hours. To one cock, four or five hens are ſufficient: for they are of ſo hot a nature, and will tread ſo much, that they ſoon conſume their natural ſtrength. At two years old you may put a cock to the battle, as not being before perfect and complete in every member; for, by ſuffering him to fight when his ſpurs are but warts, you may know his courage, but not his goodneſs. You muſt alſo be circumſpect about the perch whereon he rooſteth; for if it be too ſmall in the gripe, or crooked, or ſo ill placed that he cannot ſit without ſtraddling, it will make him uneven-heeled, and conſequently no good ſtriker.

Seeing, therefore, that the perch is of ſuch conſequence for the marring or making of them, the beſt way is to make a row of little perches, not above ſeven or eight inches long, and about a foot from the ground, ſo that with eaſe they may go up to them; and, being ſet, muſt have their legs cloſe, the ſhortneſs of the perch not admitting otherwiſe; and it is a maxim, that he that is a cloſe ſitter is ever a narrow ſtriker.

You muſt alſo be careful, that, when your cock leaps from the perch, the ground be ſoft whereon he lights; for hard ground cauſes goutineſs. In dieting and ordering a cock for the battle, which is the principal thing, (for the beſt cock undieted is not able to encounter with the worſt that is dieted,) obſerve theſe directions:

The beſt time to take up your cocks is the latter end of *Auguſt*; for from that time till the latter end of *May* cocking is in requeſt; and, having viewed them well, and that they are ſound, hard-feathered, and full-ſummed, put them into ſeveral pens.

For the proper mode of conſtructing theſe pens, it is better to conſult ſome cock-maſter, for an ocular ſight is far better than a verbal deſcription. Only obſerve, they ſhould be made of cloſe boards, well joined together, all but the fore-part, which muſt be made open like a grate, the bars about two inches apart, and before the grate two large troughs of ſoft wood, the one for water and the other for meat; the door of the grate to be made to lift up and down, and of ſuch largeneſs, as with eaſe to put the cock in and take him out; alſo, clean the pen daily, to keep it ſweet.

The pen ſhould be at leaſt three feet high, and two feet ſquare; of theſe pens many may be joined in one front, according to the uſe you have for them. For the firſt three or four days that they are put in their pens, feed them only with old wheat-bread, the cruſt pared away, and cut into ſmall ſquare bits, with which feed them at ſun-riſing and ſun-ſet, giving them about a handful at a time; and be ſure let them not be without good freſh water.

After they have been thus fed four days, and their crops are cleared of the corn, worms, and other coarſe feeding, in the morning take them out of their pens, putting a pair of hots upon each of their heels, which hots are ſoft bombaſted rolls of leather, covering their ſpurs, that they cannot hurt or bruiſe one another, ſo ſetting them down upon the graſs, that is, two at a time, let them fight and buffet one another for a good while, provided they do not wound or draw blood of each other; and this is called ſparring of cocks. The reaſon of thus exerciſing of them, is to chafe and heat their bodies, to break the fat and glut within them, and to cauſe it to come away. Your cocks being ſparred ſufficiently, and that you ſee them pant and grow weary, take them up and untie their hots; then being provided with deep ſtraw baſkets made for that purpoſe, with ſweet ſoft ſtraw in the middle, put into each baſket a cock, covering him over with the like ſtraw to the top; then put on the lid cloſe, ſo let him ſweat and ſtove till the evening; but, before you put him into the baſket, give him a lump of freſh butter, with white ſugar-candy, and roſemary, finely chopped, and this ſcouring will bring away his greaſe, and breed breath and ſtrength. In the evening, about four or five o'clock, take them out of the ſtoving-baſket, and, licking their heads and eyes all over, put them into the pens, then take a good handful of bread cut ſmall, put it to each in their troughs, and make water therein, ſo that the cock may take the bread out of the warm urine, and this will ſcour and cleanſe both the head and the body extremely. The bread, that you muſt now and afterwards give them, muſt not be fine white bread, but a ſort made for that purpoſe, after this manner: Take half a peck of wheat-meal, and the like quantity of fine oat-meal; mix theſe together, and knead them into a ſtiff paſte, with ale, the whites of twelve eggs, and half a pound of butter. This paſte, being well wrought, make it into broad thin cakes; and, when three or four days old, and the bliſter-rings are cut away, cut it into little ſquare bits, and give it to the cocks.

There are ſome that will mix in the ſaid bread, liquorice, anniſeed, with hot ſpices; but this is not good, as it makes them too hot at heart, ſo that, when they

they come to the latter end of a battle, they are overcome with their heat.

Having fed your cocks thus after their ſparring, the next day let them reſt, and only give them their ordinary feeding of bread and water; then the next day, which is the ſparring, take them into a fair, even, green, cloſe; there ſet down one of them, and, having a dunghill-cock in your arms, ſhew it him, running from him, enticing him to follow you; and ſo chaſe him up and down for about half an hour, ſuffering him now and then to have a ſtroke at him; and, when you ſee him well heated and panting, take him up, and carry him to his pen; the like do with the reſt, and there give them their ſcouring. Take half a pound of butter that has no ſalt in it; beat it in a mortar, with the leaves of the herb of grace, hyſſop, and roſemary, until the herbs are incorporated therein, and that the butter is brought to a green ſalve; and of this give the cock a roll or two, as big as he can well ſwallow; then ſtove him in the baſket, as aforeſaid, until the evening; then take him out, put him in his pen, and feed him as before directed.

The next day let him reſt and feed, and the day following ſpar him again; and obſerve this method every other day for the firſt fortnight, to ſpar or chaſe him, as being the moſt natural and kindlieſt heats; but do not forget to give him a ſcouring after every heat, as aforeſaid, for the breaking and cleanſing him from greaſe, glut, and filth, which, lying in his body, cauſe purſineſs and faintneſs, ſo that he cannot ſtand out the latter end of a battle.

Thus having fed your cock the firſt fortnight, obſerve the ſame rules the next fortnight; but for a week do not ſpar him, or give him heats, above twice a week, ſo that three or four times in a fortnight will be ſufficient; and each time ſtove and ſcour him, according to the nature of his heats; long heats require ſtronger ſtoving, as alſo greater ſcouring. But if you find him in good breath, and that he requires but ſlight heats, then ſtove him the leſs, and give him the leſs ſcouring.

For the third fortnight, which completes the ſix weeks, which is ſufficient to prepare a cock for battle, feed him as aforeſaid, but ſpar him not at all, for fear it ſhould make his head tender and ſore, neither give him any violent exerciſe; but only two or three times in the fortnight let him moderately be chafed up and down to maintain his wind; and now and then cuff a cock, which you muſt hold in your hands; this done, let him have his ſcouring, well rolled up in powder of brown ſugar-candy; for as the cock is now come to his perfect breath, and clear from filth in his body, the ſugar prevents that ſickneſs which the ſcouring would then cauſe.

When you have fed him ſix weeks, and you find your cock is in luſt and breath, he is then fit to fight; but always obſerve, that he has at leaſt three days reſt before he fights, and that he is emptied of meat before you put him into the pit.

When he is put into the pit, your chief care muſt be to match him well, in which conſiſts the principal praiſe of a cock-maſter; therefore, when you match, there are two things to be conſidered, viz. the ſtrength of cocks, and the length of cocks; for, if he be too ſtrong, he will overbear your cock, and not permit him to riſe, or ſtrike with any advantage; if he be too long, your cock will hardly catch his head, ſo that he can neither endanger eye nor life.

Now to know theſe, there are two rules: as for his ſtrength, it is known by the thickneſs of his body, as that cock is held ſtrongeſt which is largeſt in the girth, which may be eaſily known if you meaſure him with your fingers: as for his length, it is eaſily known if you gripe him about the middle, and cauſe him to ſtretch forth his legs; but, if you are doubtful that you ſhall loſe in the one, and yet are ſure to gain in the other, you may venture to match.

When your cock is thus matched, prepare him to the battle: firſt, with a pair of fine cock ſhears, cut off his mane cloſe to the neck, from his head to the ſetting on of his ſhoulders; then clip off all the feathers from his tail cloſe to his rump, which the more ſcarlet it appears, the better ſtate of body he is in; then take his wings, and extend them forth by the firſt feather, clip the reſt ſlopewiſe, with ſharp points, that when he riſes he may endanger the eyes of his adverſary; then, with a ſharp knife, ſcrape, ſmooth, and ſharpen, his beak, and alſo ſmooth and ſharpen his ſpurs; and, laſtly, ſee that there be no feathers about the crown of his head for his adverſary to take hold of: then, with your ſpittle moiſten his head all over, and ſo turn him into the pit to try his fortune.

When the battle is ended, your firſt buſineſs muſt be to ſearch his wounds, and ſuch as you find, ſuck out the blood with your mouth; then waſh them with warm urine to keep them from rankling, and preſently give him a bit or two of your beſt ſcouring, and ſo ſtove him up as hot as you can for that night: and in the morning take him forth, and, if you ſee his head much ſwelled, ſuck it with your mouth, as aforeſaid, and bathe with warm urine.

Then having the powder of the herb robert, well dried, and finely ſifted, pounce all the ſore places therewith, and give him a good handful of bread to eat, out of warm wine, and then put him into the ſtove again as before directed, being very careful that no air comes to him till the ſwelling is gone; but twice a-day ſuck and dreſs him, feeding him as aforeſaid.

But if your cock has received any hurt in his eye, then take a leaf or two of right ground-ivy, that is, ſuch as is found in little tufts in the bottom of hedges; chew this in your mouth very well, and ſuck out the juice, and ſquirt it into his eye two or three times, and this will ſoon cure it, provided the ſight is not pierced; and it will alſo preſerve the eye from films, flaws, warts, &c.

If your cock has veined himſelf, either by narrow ſtriking, or other croſs blow, find out the wound, and preſently bind unto it the ſoft down of a hare, and it will both ſtaunch it and cure it.

After your wounded cocks are put forth to their walks, as fit to go abroad, and when you come to viſit them in about a month or two after, if you find any hard ſwelled bunches about their heads, blackiſh at one

one end, it is a ſign of unſound cores; and then with a ſharp pen-knife open them, and cruſh out the ſaid cores; then ſuck out all the corruption, and fill the holes with freſh butter, which will perfect the cure.

COCK FEEDING, is when a cock is taken from his walk, he ſhould be fed a month before he fights: for the firſt fortnight feed him with ordinary wheaten bread, and ſpar him for four or five days that he has been in the pen: afterwards ſpar him daily, or every other day, till about four days before he is to fight.

For the ſecond fortnight, feed him with fine wheaten bread, kneaded with whites of eggs and milk, and give him every meal twelve picks, or corns of barley.

He ſhould not have water ſtand by him, for then he will drink too much; but let him have water four or five times a day.

If he be too high fed, ſtive him, and give him a clove of garlic in a little ſweet oil, for ſome few days; if too low fed, give him the yolk of an egg, beat and warmed (till it be as thick as treacle) with his bread.

For four days before fighting, give the cock hyſſop, violet and ſtrawberry leaves, chopt ſmall in freſh butter; and the morning he is to fight put down his throat a piece of freſh butter, mixt with powder of white ſugar-candy.

COCKING-CLOTH, a device for catching pheaſants with: for which take a piece of coarſe canvas, about an ell ſquare, and put it into a tan pit to colour: then hem it about, and to each corner of the cloth ſow a piece of leather, about three inches ſquare, and fix two ſticks croſsways, to keep it out, as A, B, C, D, in the figure, *ſee the Plate;* there muſt alſo be a hole in the cloth to look out at, as at E, which is repreſented in the figure; and being provided with a ſmall ſhort gun, when you are near enough, hold out the aforeſaid cloth at arm's end, and put the muzzle of the gun out at the hole, which ſerves as a reſt for the gun, and ſo let fly, and you will ſeldom miſs; for by this means the pheaſants will let you come near them, and the cock will be ſo bold as to fly at it. *See* Plate IV. Fig. 3.

COCK-PIT, a place made for cocks to fight in, being uſually a houſe or hovel covered over, feated like an amphitheatre.

The place on which they fight is a clod, that is, the green ſod; which is generally made round, that all may ſee, and about which there are ſeats and places for the ſpectators to ſit at, three heights, or more, one above another.

On the weighing morning, that perſon whoſe chance is to weigh laſt, is to ſet his cocks and number his pens, both main and byes, and leave the key of the pens upon the weighing table (or the other party, if he pleaſes, may put a lock on the door) before any cock is put into the ſcale, and after the firſt pack of cocks are weighed, a perſon appointed by him that weighed firſt, ſhall go into the other pens to ſee that no other cocks are weighed but what are ſo ſet and numbered, provided they are within the articles of weight that the match ſpecifies; if not, to take the following cock or cocks, until the whole number of main and bye cocks are weighed through. And after they are all weighed, you are to proceed as ſoon as poſſible to match them, beginning at the leaſt weight firſt, and ſo on; and equal weights or neareſt weights to be ſeparated, provided by that ſeparation a great number of battles can be made, and not otherwiſe; and all blanks, that is, choice of cocks, are to be filled up on the weighing day, and the battles divided and ſtruck off for each day's play, as agreed on, and the cocks that weigh the leaſt are to fight the firſt day, and ſo upwards.

At the time agreed on by both parties for fighting, the cocks that are to fight the firſt battle are brought upon the pit by the feeders, or their helpers; and after being examined, to ſee they anſwer the marks and colours ſpecified in the match bill, they are given to the ſetters-to, who, after chopping them in hand, give them to the gentlemen who are called maſters of the match (who always ſit oppoſite to each other) when they turn them down upon the mat; and the ſetters-to are not to touch them, except they either hang in the mat, in each other, or get cloſe to the edge of the pit, until they leave off fighting, while a perſon can tell forty.

When both cocks leave off fighting, until one of the ſetters-to, or a perſon appointed for telling the laws, can tell forty gradually; then the ſetters-to are to make the neareſt way to their cocks, and as ſoon as they have taken them up, to carry them into the middle of the pit, and immediately deliver them on their legs beak to beak, and not to touch them any more until they have refuſed fighting, ſo long as the teller of the law can tell ten, without they are on their backs, or hung in each other, or in the mat; then they are to ſet to again in the ſame manner as before, and continue it till one cock refuſes fighting ten ſeveral times, one after another, when it is that cock's battle that fought within the law.

But it ſometimes happens that both cocks refuſe fighting while the law is telling; when this happens, a freſh cock is to be hovelled, and brought upon the mat as ſoon as poſſible, and the ſetters-to are to toſs up, which cock is to be ſet to firſt, and he that gets the chance is to chooſe. Then the other which is to be ſet to laſt, muſt be taken up, but not carried off the pit; then ſetting the hovelled cock down to the other five ſeparate times, telling ten between each ſetting-to, and then the ſame to the other cock; and if one fights and the other refuſes, it is a battle to the fighting cock; but if both fight, or both refuſe, it is a drawn battle. The reaſon of ſetting-to five times to each cock is, that ten times ſetting-to being the long law, ſo on their both refuſing, the law is to be equally divided between them, as they are both entitled to it alike.

Another way of deciding a battle is, if any perſon offers to lay ten pounds to a crown (that is, if he is a perſon thought capable of paying it if he loſes, or one who ſtakes his money upon the mat) and no perſon takes it until the law-teller tells forty, and calls three ſeparate times, "Will any one take it?" and no one does, it is the cock's battle the odds are laid on, and the ſetters-to are not to touch the cock during the time the forty is telling, without either cock is hung in the mat, or on his back, or hung together.

If a cock ſhould die before the long law is told out, although he fought in the law, and the other did not, he loſes his battle; for ſure there cannot be a better rule for

for a cock winning his battle than killing his adverſary, in the limited time he is entitled to by cock laws.

There are often diſputes with the ſetters-to, as alſo with the ſpectators, that is, in ſetting-to in the long law, for often both cocks refuſe fighting until four or five, or leſs times, are told; then they begin telling from the cock's fighting, and counting but once refuſed, but they ſhould continue their number on, until one cock has refuſed ten times: for when the law is begun to be told, it is for both cocks: for if one cock fights within the long law, and the other not, it is a battle to the cock that fought, counting from the firſt ſetting-to.

All diſputes about bets, or the battle being won or loſt, ought to be decided by the ſpectators, for if the bets are not paid, nor the battles ſettled according to judgment then given, it would be a good evidence in law if an action is brought for a recovery of ſuch bets. The crowning and mantling of a cock, or fighting at the ſetter-to's hand before he is put to the other cock, or breaking from his antagoniſt, is allowed no fight.

COCKREL, a young cock bred for fighting.

COCK ROADS, a ſort of net contrived chiefly for the taking of wood-cocks; the nature of which bird is to lie cloſe all day under ſome hedge, or near the roots of ſome old trees, picking for worms under dry leaves, and will not ſtir without being diſturbed: neither does he ſee his way well before him in a morning early; but towards evening he takes wing to go to get water, flying generally low; and when they find any thoroughfare in any wood, or range of trees, they uſe to venture through; and therefore the cock-roads ought to be made in ſuch places, and your cock-nets planted according to the figure. *See* Plate IV. Fig. 7.

Then ſuppoſing that your range of wood be about thirty paces long, cut a walk through it about the middle, about thirty-ſix or forty broad, which muſt be directly ſtraight, with all the ſhrubs and under-wood carried away; in like manner ſhould all the boughs that hang over the ſaid walk be cut off: then chuſe two trees, oppoſite to each other, as repreſented in the figure marked A, B, and prune, or cut off all the front boughs, to make way for the net to hang and play.

In the next place, provide two ſtrong logs of wood, which open or cleave at the biggeſt ends, as marked C, D; the middle parts tie faſt to ſome boughs of the tree, as the letters E, F, direct, and let the tops hang over, as G, H, repreſent.

You ſhould always have ready good ſtore of pullies, or buckles made of box, braſs, or the like, according to the form deſigned by the figure, which ſhould be about the bigneſs of a man's finger, and faſten one at each end of the perches or legs, G, H, having firſt tied on your pullies, about the two branches marked 3, a cord, of the thickneſs of one's little finger; then tie another knot on the ſaid cord, about the diſtance of an hand's breadth from the firſt knot, marked 4, and ſo let the two ends of the cords hang down about a foot long, that therewithal you may faſten them to the pullies which are at the ends of the two perches or legs, as are marked I, L, cloſe to the notches G, H clap a ſmall packthread into each pully, which ſhould reach to the foot of the trees, that by the help thereof, you may draw up two ſtronger cords into the ſaid pullies, where you hang the net, and not be forced always to climb up into the tree.

Laſtly, provide a ſtand to be concealed; about half a dozen boughs pitched up together, may ſerve for that purpoſe; with a ſtrong crooked ſtake forced into the ground, juſt by the ſtand, on which faſten the lines of the net.

When it is drawn up, remember to tie a ſtone to the ends of each of the two cords, about four or five pounds weight each, that when you let go, the ſtones may force down the net with a ſtrong fall; and pull up both the ſtones, and upper part of the net, cloſe to the pullies I, L: the ſtones are marked M, N, and the figure repreſents the whole net ready for uſe.

The ends of both lines muſt be drawn to your lodge, or ſtand, and wound two or three times about the crooked ſtake, to prevent the falling of the net, till ſome game flies againſt it.

COCK's WALK, the place where a cock is bred; to which uſually no other cock comes.

CODS, OR STONES SWELLED; a malady in horſes that comes many ways, either by wounds, blows, bruiſes, or evil humours, which corrupt the maſs of blood that falls down to the cods; or from a rupture, *&c.*

For the cure, take bole-ammoniac reduced to a fine powder, vinegar and whites of eggs well beaten together, and anoint the part with it daily, till the ſwelling abates; and if it impoſthumate, where you find it to be ſoft, open it with an hot iron, or inciſion-knife, if it does not break of itſelf, and heal it up with green ointment.

COFFIN, OR HOOF OF A HORSE, is all the horn that appears when he has his foot ſet to the ground; and the coffin bone is that to the foot, as a heart or kernel: the latter is quite ſurrounded, or over-ſpread by the hoof, fruſh, and ſole, and is not perceived, even when the horſe's ſole is quite taken away; being covered on all ſides by a coat of fleſh, which hinders the bone from appearing.

COILING OF THE STUD, is the firſt making choic eof a colt or young horſe, for any ſervice: which by no means muſt be done too early: for ſome horſes will ſhow their beſt ſhape at two or three years old, and loſe it at four; others not till five, nay, not till ſix; but then they ever keep it: ſome again will do their beſt day's work at ſix or ſeven years old; others not till eight or nine.

COLDS (in Farriery); there are few diſeaſes incident to a horſe, which do not originate from a cold: and as no perſon uſed to horſes can be ignorant when the animal is affected with this diſeaſe, it will be ſufficient to deſcribe the nature of a cold, and the uſual ſymptoms that attend it.

Colds proceed from various cauſes; the moſt uſual are riding horſes till they are hot, and ſuffering them to ſtand expoſed to the air. The removing a horſe from a hot ſtable to a cold one: and if the horſe has been high fed and clothed, the cold contracted in this manner will

will often prove very violent: they alſo often get cold by not being carefully rubbed down, and the ſweat rubbed off, when they come from a journey.

Young horſes when they are breeding their teeth; particularly when the tuſhes are cutting, are more ſubject to take cold than at any other time.

When a horſe has taken cold, a cough will follow, and he will be heavy and dull in proportion to the ſeverity of the diſeaſe. The eyes will be ſometimes moiſt and watery, the kernels about the ears under the jaws will ſwell, and a thin mucous gleet will iſſue from his noſe. If the cold be violent the horſe will be feveriſh, his flanks work, he will refuſe his water, and loath his hot meat. When the horſe coughs ſtrong and ſnorts after it, eats ſcalded bran, and drinks warm water; is but little off his ſtomach, and moves briſkly in his ſtall; dungs and ſtales freely, and without pain; his ſkin feels kindly, and his coat does not ſtare; there is no danger, nor any occaſion for medicines. You ſhould however bleed him, keep him warm, give him ſome feeds of ſcalded bran, and let him drink freely of warm water.

Spirit, or ſalt of hartſhorn, in warm ale, ſweetened with ſyrup of poppies, given twice a day, is an excellent medicine on the firſt attack of cold catarrh; but great care ought to be had that the doſe of hartſhorn be not too large, leſt it excoriate the throat of the horſe and choke him. Two or three table ſpoonfuls of the ſpirit may be given for a doſe, in a quart or three pints of beer: a proper judgment may be made by the taſte of the drench. Or freſh ground ginger, two to four drachms, is an excellent ſubſtitute for the hartſhorn.

But if he feels hot, and refuſes his meat, it will be neceſſary to bleed him plentifully, and give the following drink; take three ounces of freſh anniſeed, and one drachm of ſaffron; infuſe them in a pint and half of boiling water; pour off the clear liquor, and diſſolve in it four ounces of honey, adding two ſpoonfuls of ſallad oil. This drink may be given every night, and with proper care will fully anſwer in all ſudden colds where there has been no previous diſorder.

Or you may give the following pectoral ball: Take of the freſh powder of fenugreek, anniſeed, cumminſeed, cardamums, elecampane, colts-foot, and flower of brimſtone, of each three ounces; juice of liquorice diſſolved in a ſufficient quantity of mountain wine, ſaffron in powder half an ounce, olive oil and honey, of each eight ounces, oil of anniſeeds an ounce; mix the whole together with as much wheat flour as will be ſufficient to make into a paſte.

Theſe balls are of exceſſive uſe, and given in ſmall quantities about the ſize of a pullet's egg, will encourage a free perſpiration; but in caſe of a fever, they ſhould not be continued but with the greateſt caution.

Warm cloathing about the head and neck is particularly uſeful here, as it promotes the running at the noſe: this diſcharge is increaſed too by the warm water which is always given him to drink, and by the warm maſhes which for this end ſhould be put into the manger rather hotter than he can eat them, in order to his being, as it were, fumigated with the ſteam aſcending from them, before it cools.

It ſhould be well attended to, that when a horſe has a cold, cough, or other diſeaſe, attended with a diſcharge at the noſtrils, great care is neceſſary to keep him clean. Horſes do not cough the phlegm up by the mouth, as it is common with men, but paſs it all by the noſe; in conſequence of which they throw it about, making every thing naſty that is near them: in all ſuch like caſes, give them their hay well ſhook and ſprinkled, and put it in ſmall quantities at a time, for his breath will ſpoil it ſo, that ſometimes it will ſicken him and beget a diſlike thereto: when he is not eating, put a little ſtraw into the manger, to catch the phlegm that he throws about by coughing; and alſo, that by taking away the ſtraw the manger may more eaſily be cleaned, which ſhould be done every time he is fed: be careful too, to clean his noſe well every time that he eats or drinks. Horſes are naturally clean, and nice to a great degree; and in theſe diſeaſes their recovery depends ſo much on their being kept clean, that theſe directions cannot be too much attended to.

When the ſigns of a cold or of a cough attends, but without feveriſhneſs (after due bleeding, and a purge or two) give one of the following balls every morning, to promote perſpiration; but if any degree of fever attends, avoid all warming medicines.

The Pectoral Ball.

Take of the freſh powders of anniſeed, elecampane, carraway-ſeeds, liquorice, turmeric, and flour of brimſtone, of each three ounces; of liquorice juice (diſſolved in water, enough to make it of the conſiſtence of honey) four ounces; of the beſt ſaffron, in powder, half an ounce; of ſweet oil and honey, of each half a pound; of the oil of anniſeeds one ounce; and of wheat-flour, enough to make the whole into a paſte. Of this paſte balls may be made about the ſize of a pullet's egg.

Dr. BRACKEN'S *Cordial Ball.*

Take anniſeeds, carraway ſeeds, the greater cardamum ſeeds, of each one ounce; flour of brimſtone, two ounces; turmeric, one ounce and a half; ſaffron, two drachms; liquorice juice (diſſolved in ſmall beer) one ounce; elecampane ſeeds, half an ounce; liquorice powder, one ounce and a half; wheat flour, enough to make the whole into a paſte.

Theſe cordial balls are an improvement on the long famed MARKHAM's Ball.

An hour's exerciſe every day will greatly haſten the cure: it alſo greatly promotes the diſcharge of rowels, which are ſometimes neceſſary, when a horſe is loaded with fleſh.

It is generally good practice to bleed at the commencement of a cold attended with fever, which ought to be repeated in a few days, if fever and fulneſs of the veſſels indicate the neceſſity. Give the following, in one or two balls, twice or thrice a day, allowing plenty of warm gruel or white water, which ſhould be poured down with the horn, if the horſe refuſe it. Nitre and cremor tartar, of each one ounce; juniper berries freſh and good, powdered, one ounce; Spaniſh liquorice melted,

melted, half an ounce, or enough to ſweeten with; work them up with liquorice powder or flour. This medicine may be given in gruel or ale, if a drink be preferred, and an addition made to the quantities if required. In either of theſe methods, you are certain the horſe has his medicine; which is by no means the caſe when you truſt to infuſions in his water, or to ingredients thrown upon, or mixed with his maſhes, which are frequently rejected and loſt. Some horſes alſo with delicate ſtomachs will not touch a maſh, in which any medicine has been mixed. There is however great inconvenience, and even danger, in forcing any medicine down a horſe's throat, when he is much troubled with a cough; and the utmoſt tenderneſs and precaution ought to be uſed. Obſerve that the cloths be not damp, or hard with dirt and ſweat; in regular ſtables, clean waſhed cloths ſhould be reſerved for theſe occaſions, or new made uſe of, well aired. Woollen cloth is a ſpecific for opening the pores; the ſtimulus of the points of wool, according to Dr. DARWIN, acting upon the ſkin. Should the throat be much ſwelled and inflamed, it will be neceſſary to keep the hood on in the ſtable; and the glands may be bathed well two or three times in the day with camphorated ſpirits, or ſpirit of hartſhorn with a ſmall quantity of oil. In caſe of damp weather, or cold ſearching wind, the horſe ought not to ſtir out of the ſtable; but if fine, he may be walked out an hour, in the middle of the day, well clothed, and with his hood. Dr. BRACKEN relates his ſucceſs in running a horſe a four mile ſweat, in order to bring the cold to a criſis. The Doctor's preſcription for increaſing the diſcharge, when the horſe may be heavy headed, from the matter being locked up, and not finding a free courſe, is, half an ounce of the dried leaves of the herb *aſara bacca*, white hellebore one drachm; powder fine, and keep it corked up. Blow a ſmall quantity of this ſnuff through a quill, up the noſtrils, two or three times a day. The univerſal concuſſion occaſioned by the act of ſneezing, has conſiderable effect in opening obſtructions, and is uſually ſucceeded by a favourable glow.

It is neceſſary to give a caution againſt impatience, and againſt the hazard of a relapſe from putting the horſe to work before the running at the noſe has ceaſed, and his appetite is re-eſtabliſhed; a part of the morbid matter being left in the veſſels may be tranſlated to ſome bowel, whence it may be impoſſible afterwards to diſlodge it. If the diſcharge has been conſiderable, the horſe muſt have ſwallowed much of it with his meat; on that account, and for the ſake of cleanſing the habit of any relic of the diſeaſe, give, a few days after he ſhall have recovered of the catarrh, an aloetic purge; or a mercurial one, if a groſſneſs and foulneſs of body ſhould require it.

The fever running high, with violent heaving of the flanks, indicating great commotion of the blood, rattling in the throat, with loud ſtrong cough; all cordial drenches, or balls compounded of hot ſeeds, ought to be avoided, as they occaſion a dangerous increaſe of the fever. Cooling, aperient, and diuretic drinks, muſt be the dependence here; nor muſt the horſe be over-burthened with clothes. The giving hot ſpicy drenches, in this caſe, is a uſual error of the farriers, who, judging in a right line, that cold and heat are oppoſites; and the horſe having a cold, think they cannot do better than to ply him with heat.

On the contrary, ſhould the horſe's blood ſeem chilled, with cold breath, cold extremities, and little diſcharge from the noſe; it will be neceſſary to allow plenty of clothing, and to exhibit warm cordial and ſtimulating medicines; perhaps in this caſe, bleeding may be omitted. The common cordial ball has generally been found of equal efficacy with the other forms. Comfortable malt maſhes will be required. Should the cold have been contracted from the horſe being long expoſed to the weather, when heated with violent exerciſe, or from paſſing deep waters in that ſtate, and the limbs become ſwelled, ſtiff, and inactive; an addition of two drachms of camphor to the cordial drink, will render it more penetrating. After this claſs of medicines ſhall have had a ſucceſsful operation, the cure may be completed with cooling diuretics, or they may be uſed alternately according to ſymptoms. Errors have been committed on both ſides the queſtion: in cold catarrh, by the too early exhibition of ſaline and refrigerating medicines, merely from the affectation of a new and more refined method of practice, by which the diſeaſe has been prolonged, and the patient (human or brute) needleſsly kept in a weak and aguiſh ſtate many days.

The ſymptomatic cough generally ceaſes with the original diſeaſe, indeed always, in caſe of a perfect cure; but ſhould the cough be very frequent and troubleſome, from violent irritation of the humours about the root of the tongue, and along the windpipe; the following lubricating drink will be of uſe, and may be given a pint or two at a time, blood-warm, at diſcretion.

The PECTORAL INFUSION to eaſe the cough. Raiſins ſtoned, half a pound; liquorice root, ſplit, or bruiſed, three ounces; white horehound, three ounces; linſeed, two ounces; nitre, two ounces; infuſe in four or five quarts boiling water, and let the whole ſtand covered up two or three hours, ſtrain off, without preſſing, for uſe.

It is evident that balls, in this caſe, can be of very ſmall topical uſe, but that a drink has a more laſting contact with, and acts more powerfully upon the ſeat of the complaint; the above is free from the old objection of being too oily and clogging. Lemon juice, or ſolution of cremor tartar, may be added, if thought neceſſary. This infuſion, proportionally reduced in quantity, is a moſt excellent remedy for hoarſeneſs in human patients.

To allay the tickling cough in horſes, and heal inward foreneſs, ſolution of gum Arabic, or tragacanth, with honey are uſed: alſo infuſion of linſeed, tar, oxymel of ſquills, &c.

Catarrh is of proportionate ſtrength to the degree of cold taken, and its aſtrictive force upon the cuticular abſorbents. Thus ſometimes ſo violent a ſhock, or cold-ſtroke is received, as to cauſe a ſpaſmodic contraction of the muſcles, in the parts immediately affected, the ſpaſm by ſympathy extending to various other parts.

INFUSION FOR A FRESH COLD AND COUGH, FROM GIBSON. Take hyſſop, coltsfoot, penny-royal, and horehound, of each a handful; ſix cloves of freſh garlic, peeled, and cut ſmall, linſeed, and freſh anniſeed powdered, each one ounce; liquorice half an ounce; ſaffron one drachm; infuſe in two quarts boiling water cloſe covered; warm a quart of this infuſion, and diſſolve in it four ounces honey, to be given faſting, letting the horſe ſtand two hours before he has meat or water. Scabious, rocket, agrimony, and the carminative ſeeds aniſe, cummin, coriander, fennel, &c. are uſed in this intention.

A COMMON INFUSION OR COOLING DRINK. Take groundſel, ground-ivy, rue, roſemary, mallows, balm, ſage, parſley, or as many of them, or of ſimilar qualities, as are at hand, of each a double handful, corn poppies one handful, boil in five quarts of ſoft water to three—ſtrain and ſweeten with honey or treacle.

The CORDIAL POWDER. Anniſeeds, elecampane, liquorice, bay-berries, grains of paradiſe, juniper-berries, ſtone-brimſtone, equal quantities all finely powdered. Mix well, and keep cloſe corked for uſe. The doſe from one to three ounces, in warm ale ſweetened with honey, or balls made with honey or treacle. This medicine is of great uſe, when a horſe is firſt ſeized with a ſhivering fit, refuſing his food, and breaking out in clammy cold ſweats; it may be repeated ſeveral times, at ſix or eight hours interval. Or, cummin-ſeeds, half a pound; bay-berries, and Jamaica pepper, each four ounces; myrrh, two ounces; cloves, one ounce; powder fine and mix, ſtop cloſe. Said to have ſucceeded often in caſes of cold water being drank, when the horſe was in a ſtate of perſpiration.

The PECTORAL BALL FROM BRACKEN. Take half a pound of the common cordial ball, two ounces freſh hog-lice or millipedes; one ounce milk ſulphur; half an ounce of cold ſpecies of gum tragacanth; balſam of Tolu in fine powder, one ounce; ches turpentine half an ounce; ſyrup of balſam enough to form the balls. Give half an ounce to three quarters twice a day, before going out to exerciſe. This ball is much recommended by the Doctor, and is well calculated for a horſe which has contracted a freſh cold and cough, but is ſufficiently in ſpirits and vigour, to be able to work it off in his exerciſe. It is very proper for a horſe in training. Or, A good deterſive or cleanſing ball may be made, by adding to any form of cordial ball, ſquills, Barbadoes tar, and Caſtile ſoap, each about a quarter of the quantity of the cordial mixture.

LINIMENT FOR SPASMS, OR CONTRACTIONS FROM COLD. Mix gooſe greaſe, or any penetrating oil, with ſpirits doubly camphorated, rub thoroughly the muſcles affected three times a day, a quarter of an hour each time. Oil of turpentine would be moſt proper, but unleſs previouſly boiled, it will fetch off the hair. Or, Nerve ointment and oil of bays, of each two ounces; camphor rubbed fine one ounce; rectified oil of amber, three ounces. Mix.

PERSPIRATIVE POWDER, FROM BARTLET. Purified opium, Ipecacuhan root, and liquorice, in powder, one ounce each; nitre and tartar of vitriol, of each four ounces. Mix well and ſtop cloſe. Join from three to four drachms of this powder, with a drachm of camphor, and give it in a ball made up with treacle, night and morning, clothing very carefully.

Or, Nitre and ſtone-brimſtone, half an ounce each; camphor one drachm; tartar emetic one drachm. Ball with treacle.

The ANTIMONIAL BEER. Glaſs of antimony finely powdered eight ounces, ſtrong beer one gallon, infuſe in a ſtone bottle a fortnight, ſhaking well every day. Give one pint of this in a little warm ale and treacle, twice a day, as long as needful. It has a moſt powerful effect upon the whole vaſcular ſyſtem, promoting all the animal ſecretions, and ſhould be kept ready for uſe. Or, for a haſty occaſion, two ounces of antimonial wine in a drink of ſtrong beer or ale, ſweetened with treacle, twice or thrice a day. *See* FEVER.

Mr. LAWRENCE, in his judicious publication, decries the too frequent uſe of cordial balls, ſo highly in vogue amongſt liquoriſh and ſweet-toothed grooms, and the intereſted venders of veterinary panaceas. BRACKEN ſurely acted without his accuſtomed caution, in recommending ſo indiſcriminately this favourite noſtrum; and his recommendation ſet all the northern grooms in particular, cordial ball mad. In caſes where cordials are indicated, almoſt any of the forms of the *paſta hyppiatria* may ſucceed, but the conſtant uſe of the cordial balls, adopted in ſome ſtables, is not only a ſuperfluous expence, but I have known it attended with very ill effects upon the porous ſyſtem, and ſtomachs of horſes. As an example take the following. A certain training groom recommended a Yorkſhire lad to the care of a ſtable of as high-bred and good hunters as any in England. In the height of the ſeaſon the gentleman complained, that although he had gone to a vaſt expence, and purchaſed, as he ſuppoſed, the beſt cattle, not one of them would ſtand a hard day's work in the field, but that after an hour's riding, they became waſhy and faint, ejected their meat continually, and were ſo light in the carcaſe, that they were ready to ſlip their girths. On examination of the horſes, and the conduct of the young groom, it appeared that the miſchief had ariſen from his conſtant ſtuffing them, morning and night, with cordial balls, which from the quantity of ſulphur they contained, and their general aperitive quality, had the above deſcribed effects: thoſe balls being totally diſcontinued, the carcaſes of the horſes became hard, and they performed their buſineſs in the higheſt ſtile.

COLICK OR CHOLIC; the moſt peculiar ſign of the wind colick in horſes, is the ſwelling of their body, as if it was ready to burſt, accompanied with tumbling and toſſing. *See* CHOLIC.

It is alſo known by his ſtretching his neck, or legs, by his ſtriking at his belly, by his lying down and riſing often, ſtamping with his feet, *&c.*

There are many remedies proper for this diſeaſe, of which I here mention but one.

Take half a pint of white wine, warm it, put to it ſix ounces of oil, and fifty drops of ſpirit of hartſhorn; and give it the horſe; but if he be full of blood, firſt bleed him: if this doſe does not cure him, give him another, with an hundred drops of ſpirits of hartſhorn. *See* CHOLIC.

COLLAR OF A DRAUGHT HORSE, a part of the harneſs made of leather and canvas, and ſtuffed with ſtraw or wool, to be put about the horſe's neck.

COLOURS OF A HORSE; the terms by which we call a horſe's coat or outward appearance, in England; and they are theſe following, with the explanation of ſuch as ſeem obſcure.

1. White; 2. black; 3. ſad iron-grey, which is black, with the tips of the hairs whitiſh; 4. grey, which is a darkiſh white; 5. dark, or black-grey, that is, a deep-coloured browniſh red, a cheſnut-colour; 6. bay, i. e. a light whitiſh-brown red; 7. flea-bitten, that is, white, ſpotted all over with ſad reddiſh ſpots; grey flea-bitten; 8. dapple-grey, that is, a light grey, ſpotted, or ſhaded with a deeper grey; 9. dapple-bay, ſpotted with a deeper colour: 10. dun, a light hair colour, next unto a white; 11. mouſe-dun, a mouſe-colour; 12. ſorrel, lighter than a light-bay, inclining to a yellow; 13. bright-ſorrel, lighter than the former; 14. rount, a kind of fleſh-colour, or a bay intermixed with white and grey, a roan colour; 15. grizzle, a light rount, or light fleſh-colour; 16. pye-bald, that is, a horſe of two colours, as ſome part of him white, and the other parts bay, iron-grey, or dun-colour.

The colour of horſes are thus diſtinguiſhed by the Engliſh; the French, upon this ſubject, ſay as follows:

1. The ſorrel-bay, inclining to red, is as red-haired as a man; all are good horſes of this colour, eſpecially when the legs and tail are black; but they are very ſubject to be choleric, and conſequently have much fire in them.

2. Sorrel, with cow's hair, and the hair of the ſame colour, or white: this is not ſo choleric as the laſt, having white marks, which proceed from phlegm, of which he is full; which very much qualifies the fiery nature of a horſe, and makes him good.

3. A bright ſorrel; a horſe with this coat has white hairs, and is not good, becauſe he has too much phlegm in him; which is the reaſon that he is always heavy.

4. The common ſorrel, which is neither brown nor bright; but thoſe of this coat are much eſteemed.

5. The flaming ſorrel; a horſe with this coat is very fine, has always his extremes and his black hairs; and is much eſteemed.

6. The dark ſorrel; thoſe of this colour are always very melancholy; but yet much diſpoſed to apprehend whatſoever you would have them learn.

7. The dapple; this colour is very pleaſing to the ſight.

8. Bay, cheſnut colour; the moſt common of all, and that to which nature has given qualities, that they make them excel others.

9. Bright bay; not ſo good, by reaſon of the phlegm which predominates.

10. The gilded bay; is better than the laſt, becauſe he has more choler, which animates him.

11. Brown bay, almoſt black; this colour ſhews the beaſt to be choleric, and commonly to have fire at the end of his flank.

12. White; all of this colour are ſluggiſh.

13. Starling; a colour that borders upon a brown-grey, or black, ſaving that there are many white hairs to be met with therein, and hinders it from being altogether black; horſes of this colour are good enough.

14. Firebrand grey; a coat marked with black hairs, here and there in great ſpots; horſes of this colour are very nimble and active.

15. Dapple grey; a very common colour, and is not ſo good as the laſt but one.

16. Silver-grey; a lively and beautiful grey; horſes of this colour are as good as any.

17. Sallow grey; a grey mixed almoſt throughout with black; better than dapple.

18. Brown grey; horſes of this colour are good.

19. Red grey; a better coat than all the reſt, becauſe of choler, which is mixed with the phlegm.

20. Iſabella; a colour that denotes a good horſe.

21. Wolf colour; bright in ſome horſes, and brown in others; the laſt are the beſt, and come near the Iſabella.

22. A very lively black is the beſt of any.

23. Pyed black; this colour denotes the horſe to be good.

24. Pyed bay; denoting them to be ſtill better.

25. Pyed ſorrel; all theſe three different pyeds have ſome white hairs, as far as the ham, or hoof, and are all excellent horſes; and it is to be obſerved, that thoſe which have the leaſt white, are the moſt coveted by thoſe who underſtand horſes.

26. Porcelaine; ſo called, becauſe of their white bodies mixed with red ſpots; horſes of this colour are very rare.

27. The vinous roan; a colour that reaches ſo far, that you would believe it to be that of white.

28. Another roan; has his head and extreme parts black, and is very good.

29. A rubican; is when a black or ſorrel horſe has white hairs here and there, eſpecially upon the flanks; horſes of this colour are very mettleſome.

30. Mouſe colour is eaſily underſtood; ſome of theſe have a black ſtripe upon the back, others on the legs and hams; horſes of this colour, and whoſe extreme parts are black, are to be choſen before many others.

31. Tiger; is the ſame as the firebrand, except that the ſpots in theſe are not ſo large, and that they are not ſo good as the others.

COLT, a word in general ſignifying the male and female of the horſe kind; the firſt, likewiſe, for diſtinction ſake, being called a horſe colt, and the other a filly.

After the colts have been foaled, you may ſuffer them to run with the mare till about *Michaelmas*, ſooner or later, according as the cold weather comes in; then they muſt be weaned; though ſome perſons are for having them weaned after *Martinmas*, or the middle of *November*. The Author of the *Compleat Horſeman* is of opinion, that the reaſon why moſt foals advance ſo ſlowly, and are not capable of ſervice till they are ſix or ſeven years old, is becauſe they have not ſucked long enough; whereas if they had ſucked the whole winter over, they would be as good at four or five years old, as they are now at eight.

They ought to be kept in a convenient houſe, with a low rack and manger for their hay and oats, which muſt be ſweet and good; with a little wheaten bran mixed with the oats, to cauſe them to drink, and to keep their bodies open.

But ſince there are ſome who alledge, that oats make foals become blind, or their teeth crooked; the ſame Author is of opinion, that oats will wear their teeth, and make them the ſooner to change, and alſo raze; therefore he judges it to be the beſt way to break them in a mill, becauſe that by endeavouring with their jaws to bruiſe and chew them, they ſtretch and ſwell their eye and nether jaw-veins, which ſo attract the blood and humours that they fall down upon the eyes, and frequently occaſion the loſs of them: ſo that it is not the heating quality of oats, but the difficulty in chewing, that is the cauſe of their blindneſs.

Further, that colts thus fed with grain, do not grow thickiſh upon their legs, but grow broader, and better knit, than if they had eaten nothing but hay and bran, and will endure fatigue the better.

But above all they muſt be kept from wet and cold, which are hurtful to them, nothing being more tender than they are.

For proof of this, take a *Spaniſh* ſtallion, and let him cover two mares, which for age, beauty, and comelineſs, may admit of no difference between them: and if they be both horſes, or both fillies, which is both one and the ſame thing, let one run abroad, and the other be houſed, every winter, kept warm, and ordinarily attended; and that colt that has been kept abroad ſhould have large fleſhy ſhoulders, flabby and gouty legs, weak paſterns, and ill hoofs; and ſhall be a dull, heavy jade, in compariſon to the other which is houſed, and orderly kept; and which will have a fine forehand, be well ſhaped, have good legs and hoofs, and be of good ſtrength and ſpirit; by which you may know, that to have the fineſt ſtallion, and the beautifulleſt mare, is nothing, if the colt is ſpoiled in the breeding up.

It is worth obſervation, that ſome foals, under ſix months old, though their dams yield abundance of milk, yet decay daily, and have a cough, proceeding from certain pellicles, or ſkins, that breed in their ſtomachs, which obſtruct their breathing, and at laſt deſtroy them entirely.

To remedy this malady, take the bag wherein the colt was foaled, dry it, and give him as much of it in milk as you can take up with three fingers: but if you have not preſerved the bag, procure the lungs of a young fox, and uſe it inſtead of the aforeſaid powder.

It will be proper to let the colts play an hour or two, in ſome court-yard, *&c.* when it is fair weather, provided you put them up again carefully, and ſee that they take no harm.

When the winter is ſpent, turn them into ſome dry ground, where the graſs is ſhort and ſweet, and where there is good water, that they may drink at pleaſure; for it is not neceſſary that a colt ſhould fill his belly immediately, like a horſe that labours hard.

The next winter you may take them into the houſe, and uſe them juſt as your other horſes; but let not your horſe-colts and fillies be kept together, after the firſt year.

This method may be obſerved every ſummer and winter, till you break them, which you may do after they are three years old; and it will be a very eaſy thing, if you obſerve the aforeſaid method of houſing them, for ordering them the ſecond year as you do other horſes, that they will be ſo tame and gentle, that you need not fear their plunging, leaping, kicking, or the like; for they will take the ſaddle quietly.

As for all thoſe ridiculous ways of beating and cowing them, they are, in effect, ſpoiling them, whatever they call it, in ploughed fields, deep ways, or the like; inſtead of which, let the rider ſtrive to win them by gentle uſage, never correcting them but when it is neceſſary, and then with judgment and moderation.

You will not need a caveſſon of cord, which is a head-ſtrain, nor a pad of ſtraw; but only a common ſaddle, and a common caveſſon on his noſe, ſuch as other horſes are ridden with; but it ought to be well lined with double leather; and if you pleaſe you may put on his mouth a watering bitt, without reins, only the head ſtall, and this but for a few days; and then put on ſuch a bitt as he ſhould be always ridden with: and be ſure not to uſe ſpurs for ſome time after backing.

Take notice, that as yearlings muſt be kept abroad together, ſo thoſe of two years old together; the like for thoſe of three yearlings, which ordering is moſt agreeable to them, *See* FOAL *and* STUD.

In order to make him endure the ſaddle the better, the way to make it familiar to him, will be by clapping the ſaddle with your hand as it ſtands upon his back, by ſtriking it, and ſwaying upon it, dangling the ſtirrups by his ſides, rubbing them againſt his ſides, and making much of him, and bringing him to be familiar with all things about him; as ſtraining the crupper, faſtening and looſening the girths, and taking up and letting out the ſtirrups.

Then as to the motion of him, when he will trot with the ſaddle obediently, you may waſh a trench of a full mouth, and put the ſame into his mouth, throwing the reins over the fore part of the ſaddle, ſo that he may have a full feeling of it; then put on a martingale, buckled at ſuch a length, that he may but juſt feel it when he jerks up his head; then take a broad piece of leather and put about his neck, and make the ends of it faſt by plaiting of it, or ſome other way, at the withers, and the middle part before his wealand, above two handfuls below the thropple, betwixt the leather and his neck: let the martingal paſs ſo, that when at any time he offers to duck, or throw down his head, the caveſſon being placed upon the tender griſtle of his noſe, may correct and puniſh him; which will make him bring his head to, and form him to an abſolute rein: trot him abroad, and if you find the reins or martingal grow ſlack, ſtraiten them, for when there is no feeling, there is no virtue. *See* BACKING A COLT.

COLT-EVIL, a diſeaſe to which both ſtone-horſe and

and gelding are ſubject: it happens to the firſt, by an unnatural ſwelling of the yard and cods, proceeding from wind filling the arteries, and hollow ſinew, or pipe of the yard; and alſo through the abundance of ſeed: and it affects a gelding, for want of natural heat to expel any farther.

There are ſeveral things very good for this diſtemper: as the juice of rue mixed with honey, and boiled in hog's greaſe: bay leaves, with the powder of fenugreek added to it: with which the part affected is to be anointed and ſheathed.

A ſoft ſalve made of the leaves of betony, and the herb art ſtamped with white wine, is proper to anoint the ſore; the ſheath alſo muſt be waſhed clean with lukewarm vinegar, and the yard drawn out and waſhed alſo; and the horſe ridden every day into ſome deep running water, toſſing him to and fro, to allay the heat of his members, till the ſwelling be vaniſhed; and it will not be amiſs to ſwim him now and then: but the beſt cure of all, is to give him a mare, and to ſwim him after it. *See* SHEDDING SEED.

COLT-TAMING, is the breaking of a colt, ſo as to endure a rider, *&c.*

Theſe animals being naturally of themſelves unruly, you ſhould make them familiar to you from the time they have been weaned, when foals; and ſo winter after winter, in the houſe, uſe them to familiar actions, as rubbing, clawing, haltering, leading to water, taking up their feet, knocking their hoofs, and the like; and ſo break him to the ſaddle.

The beſt time is at three years, or four at moſt; but he who will have the patience to ſee his horſe at full five, ſhall be ſure to have him of a longer continuance, and much leſs ſubject to diſeaſe and infirmities.

Now in order to bridle and ſaddle a colt, when he is made a little gentle, take a ſweet watering trench, waſhed and anointed with honey and ſalt, which put into his maſh, and ſo place it that it may hang about his tuſh; then offer him the ſaddle, but with that care and circumſpection, that you do not frighten him with it, ſuffering him to ſmell at it, to be rubbed with it, and then to feel it; and after that, fix it on, and girth it faſt: and at what part and motion he ſeems moſt coy, with that make him moſt familiar of any other.

Being thus ſaddled and bridled, lead him out to water, bring him in again; and when he has ſtood a little, reined, upon the trench, an hour or more, take off the bridle and ſaddle, and let him go to his meat till the evening, and then lead him out as before; and when you carry him in again to ſet him up, take off his ſaddle gently, and dreſs him, clothing him for all night.

COMB. The creſt or red fleſhy tuft growing upon a cock's head.

To COMMENCE, OR INITIATE, A HORSE, is to put him to the firſt leſſons, in order to break him.

To commence this horſe, you muſt work him round the pillar. *See* ROPE.

COMPRESSION OF THE HOOF, IN HORSES: this happens by the coronary puſhing againſt the nut-bone, upon which it partly moves, which takes for its point and ſupport the upper and fore part of the foot-bone compreſſed; the nut-bone which it raiſes, and which puſhes againſt the back ſinews, occaſions this ſinew to preſs the fleſhy ſole againſt the horny one.

The conſequence of this compreſſion is, that an inflammation will extend itſelf to the ligaments and tendons, and occaſion a ſtiff joint, and ſo render the foot uſeleſs; ſpeedy preventives ſhould therefore be uſed.

You may diſcover ſtrong compreſſions by puſhing the thumb upon the coronet, which will give him extreme pain. If the compreſſion is not ſtrong and violent, this method will not diſcover it, and you muſt examine his foot, pare away the horny ſole till it becomes flexible, which muſt be done as near the frog as can be; the tool muſt be preſſed; and, if the horſe is then ſenſible of it, it is certain that there is a compreſſion of the coronary-bone upon the nut-bone.

The compreſſion is cured either by the uſe of repellents, diſperſing the inflammation, or by drawing the ſole; the latter is the moſt certain method, and it has been known to cure when the others have failed; the ſooner, therefore, this is done, the better, as the fleſhy ſole is thereby immediately relieved from preſſure, the ſpace in the hoof is enlarged, the circulation becomes eaſy, and the free uſe of the foot is recovered.

CONEY. *See* RABBIT.

CONSUMPTION, IN HORSES; this diſorder is known by the following ſymptoms: his flanks move quick, and with apparent uneaſineſs; he ſneezes and groans frequently; his eyes are dull and watery; he breathes with difficulty, and ſometimes coughs; he ſweats greatly with very little exerciſe, and has little or no appetite to hay; when theſe ſymptoms prevail, you may be pretty ſure that his lungs are affected.

You will pleaſe to obſerve, that, after having taken the methods I herewith preſcribe, if he ſhould relapſe after ſome appearance of amendment, and a yellow gleet or curdled matter runs from his noſe, and he grows emaciated, is much addicted to ſweat, heaves a good deal, and has a ſhort cough, I would adviſe you to knock him on the head, for you will never be able to effect a cure.

The ſalt marſhes have frequently been very beneficial, and more ſo than medicines, as they are a great alterative; but, when you have not the opportunity of turning him into any, I would adviſe frequent bleeding in ſmall quantities at a time, which ſhould be repeated as often as there are any great oppreſſions of breath. Pectoral medicines may be occaſionally given; but as mercury, properly prepared, is the beſt and moſt effectual phyſic in many caſes, ſo in this I would particularly recommend it.

The following may be given with ſafety, but you muſt take great care of him whilſt he is under the operation of it.

Take two drachms of calomel, mix it well with half an ounce of the conſerve of roſes, and give it the laſt thing at night; repeat this bolus as often as you can, without ſalivation or purging; and, if a moderate evacuation be wanting, let him have a gentle purge. Or the following alterative powders.

Take of native cinnabar, or cinnabar of antimony, one

one pound, powder it very fine, and add the ſame quantity of gum-guaiacum and nitre; let the horſe have an ounce of this powder twice a-day, and wet his feeds.

CONSUMPTION, dry: this diſeaſe is occaſioned by ſharp corroding humours deſcending from the head and falling upon the lungs, by which they are many times ulcerated, and, by their bad effects, cauſe a macerating or waſting of the body, yet ſend forth no corruption at the noſe, becauſe the moiſture is conſumed by the heat.

Take a pint of the juice of comfrey, half a pint of oil of roſes, the juice of four lemons, and an ounce of the juice of rue; let them ſimmer over a gentle fire, and add of the powder of round birthwort roots two ounces, and an ounce of that of rhubarb, and give him theſe in two equal portions, morning and evening.

CONVULSION, CRAMP-HALTING, OR LAMENESS, IN GOATS: this is produced by too extreme heats and colds, which ſettle a wateriſh humour, or contract the nerves.

Bathe the parts with oil of turpentine, ſpike, linſeed, and boiling water.

CONVULSIONS, IN HORSES, may, and often do, ariſe from blows on the head, too violent exerciſe, and over-ſtraining, and from a fulneſs of blood, or impoveriſhed blood and ſurfeits. Young horſes, from four to ſix years old, are very ſubject to convulſions from bot-worms in the ſtomach, eſpecially in the ſpring; they are ſeized without any previous notice, and, if they are diſcovered in their dung, there is but little doubt that the convulſions proceed from them, eſpecially if they are lately come out of a dealer's hands.

Convulſions ſometimes proceed from diſtempered bowels; in this caſe he falls off his ſtomach, is diſpirited, grows weak and feeble, and the leaſt exerciſe will make him ſhort-breathed. GIBSON ſays, "As ſoon as the horſe is ſeized, his head is raiſed with his noſe towards the rack, his ears pricked up, and his tail cocked, looking with eagerneſs as a hungry horſe when hay is put down to him, or like a high-ſpirited horſe when put upon his mettle; inſomuch, that thoſe who are ſtrangers to ſuch things, when they ſee a horſe ſtand in this manner, will ſcarcely believe any thing of conſequence ails him; but they are ſoon convinced when they ſee other ſymptoms come on apace, that his neck grows ſtiff, cramped, and almoſt immoveable; and, if a horſe in this condition lives a few days, ſeveral knots will ariſe on the tendinous parts thereof, and all the muſcles before and behind, will be ſo much pulled and cramped, and ſo ſtretched, that he looks as if he was nailed to the pavement, with his legs ſtiff, wide, and ſtraddling; his ſkin is drawn ſo tight on all parts of his body, that it is almoſt impoſſible to move it, and, if trial be made to make him walk, he is ready to fall at every ſtep, unleſs he is carefully ſupported; his eyes are ſo fixed with the inaction of the muſcles as gives him a deadneſs in his looks; he ſnorts and ſneezes often, pants continually with ſhortneſs of breath; and this ſymptom increaſes continually till he drops down dead, which generally happens in a few days, unleſs ſome ſudden and very effectual turn can be given to the diſtemper."

I will now adviſe that he be bled rather plentifully if he can bear it; laxative purges and emollient clyſters ſhould be adminiſtered. If the convulſions ariſe from bots, give him this mercurial ball:

To a proper quantity of conſerve of roſes, take mercurius dulcis and philonium, of each half an ounce, and let it be given him directly.

When it proceeds from other cauſes, twice a-day you may give him the following nervous ball.

Take of Ruſſia caſtor, powdered, two drachms; valerian root, powdered, one ounce; aſſa-fœtida, half an ounce; make theſe into a ball, with honey and oil of amber. Or,

Take ariſtolochia, myrrh, and bay-berries, of each two drachms; cinnabar of antimony, ſix drachms; and aſſa-fœtida, half an ounce; make theſe into a ball, with oil of amber and treacle.

If there are any contractions and ſtiffneſs in any of his parts, ſuch as his cheeks, temples, neck, ſhoulders, ſpines of the back and loins, the following ointment ſhould be rubbed in:

Take of oil of amber, two ounces; nerve and marſh-mallow ointment, of each four ounces; and a ſufficient quantity of camphorated ſpirits of wine: make theſe into an ointment.

Frictions are remarkably uſeful in all convulſive caſes, and ſhould be uſed where there is any probability of ſtiffneſs or contractions; this method often prevents their being jaw-ſet; and, when the jaws do happen to ſet ſo that it is impoſſible to get any thing in at the mouth, they muſt be ſupported by nouriſhing clyſters made of broth, milk, pottage, &c. but firſt give him the following nervous clyſter:

Take rue, penny-royal, and chamomile-flowers, of each a handful; valerian root, two ounces; boil them in five pints of water, till they are reduced to four; in the ſtrained liquor diſſolve caſtor and aſſa-fœtida, of each half an ounce. Apply this once a-day.

I would not adviſe the uſe of rowels in convulſive caſes, for they ſometimes mortify, and ſeldom digeſt kindly; neither running a red-hot iron through the foretop and mane, for this likewiſe has its bad conſequences.

COP: the top of any thing; alſo a tuft on the head of birds.

COPING-IRONS: inſtruments uſed by falconers in coping or paring a hawk's beak, pounces or talons, when they are overgrown.

CORE, IN PIGEONS: a malady, ſo called, form its likeneſs to the core of an apple; it is hard, and uſually of a yellow colour interſperſed with red, and is moſtly ſeated on the anus or vent.

Cure—This muſt be ripened; to effect which, keep the pigeon looſe, by giving it a gentle purge of tobacco; a ſmall quantity will do; this will ſometimes make them diſcharge the core themſelves; if not, when ripe, it muſt be drawn out.

CORK, OR CORKING OF A SADDLE, the pieces to which the bolſters are made faſt, ſo called from having formerly been made of cork.

CORNERS,

CORNERS, or Angles of the Volt, are the extremities of the four lines of the volt when you work in ſquare.

CORNER TEETH of a Horse, are the four teeth that are placed between the middling teeth and the tuſhes, being two above and two below, on each ſide of the jaw; which ſhoot when the horſe is four years and a half old.

CORNS. In the human body, corns in the feet are termed ſo with ſome propriety, from their horny ſubſtance; but what are called corns in the feet of horſes are very improperly named, as they are quite of an oppoſite nature, rather reſembling contuſions or bruiſes, and not unlike thoſe bruiſes which happen in the palms of the hands and fingers to working people, ariſing from violent pinching, bruiſing, &c. where the ſkin is thick, which appears of a blackiſh red colour, and exceedingly painful at firſt, containing blood; but, in the end, the ſerum, or thinner parts being abſorbed, the red particles appear when the dead ſkin is removed, like red powder. In like manner corns, or rather bruiſes, appear red and foxy, as the phraſe is. They are ſituated in the corner or ſharp angle of the ſole at the extremity of the heels, where the cruſt reflects inward and forward, forming the binders. But they are more frequently met with in the inſide heel, from the manner of the horſe's ſtanding, together with the preſſure or weight of the body, which is greater upon the inſide of the hoof than the outſide. Bruiſes of this kind are exceedingly painful, inſomuch that the horſe ſhrinks and ſtumbles when any thing touches or preſſes upon that quarter of the hoof, hence lameneſs. This complaint ariſes from different cauſes, according to the ſhape or natural formation of the hoof, together with the treatment they are expoſed to. But the following are the moſt frequent:

1ſt. In flat low heels, from too great a preſſure of the ſhoe-heel upon the ſole, whether from cankers, a too great thickneſs of iron upon the heels of the ſhoe, or its being bended downwards upon the ſole, or the ſhoe made too concave; either of theſe cauſes will produce the ſame effect: for, from the too great preſſure upon the horny ſole, the fleſhy ſole, which lies immediately underneath it, is compreſſed and bruiſed between the ſhoe-heel, the ſole, and the extremities or outward points of the coffin-bone: and hence a contuſion or bruiſe, attended with an extravaſation of the blood, which afterwards gives that part of the ſole a red appearance, and is the reaſon why the ſole on that place never grows ſo firm and ſolid as it was before, but remains ſoft and ſpongy, forming a lodgment for ſand and gravel, which too frequently inſinuates itſelf into the quick, cauſing an inflammation, attended with a ſuppuration or diſcharge of matter, which, if not finding a paſſage below, will certainly break out at the coronet.

2d. This complaint is produced in wide open heels, when the hoofs are very thick and ſtrong, from too great a luxuriancy of the binder, which, being inflected or bended downwards between the ſhoe and the ſole, compreſſes the fleſhy ſole as already mentioned; and hence lameneſs.

3d. This malady, in deep narrow hoofs, proceeds from a contraction of the cruſt compreſſing the heels, &c. Hence, it not unfrequently happens in hoofs of this ſhape, that both heels are alike affected, from the ſtructure and preſſure of the hardened cruſt upon the tendinous aponeuroſis, &c. on the outſide of the coffin-bone, which, in this caſe, is bruiſed between the bone and the cruſt; hence the redneſs may ſometimes be traced upwards almoſt to the coronet. In this caſe no radical cure can take place, as the cauſe which produces theſe bruiſes, &c. will exiſt while the horſe lives, and, at the ſame time, the horſe will be lame from the contraction of the hoof; but the remedy propoſed, by way of palliation for hoof-bound feet, may be of uſe to render the horſe more ſerviceable. *See* Hoof-bound.

With reſpect to the two firſt cauſes, when the bruiſe proceeds from too great a preſſure from the ſhoe heels, &c. upon the ſole, the ſhoe muſt be made ſo as to bear off the tender part, and likewiſe to ſome diſtance on both ſides of it; for which purpoſe, a round or a barred ſhoe will be neceſſary. The red and bruiſed parts muſt be cut out to the quick, and the hoof kept ſoft with emollient poultices for ſome time. But the texture of the blood-veſſels, and likewiſe that of the hoof at the bruiſed part, being deſtroyed, a ſponginess remains afterwards, and upon the leaſt unequal preſſure from the ſhoe, &c. are liable to a relapſe, never admitting of a thorough cure, and of conſequence ſubject to frequent lameneſs.

Corns, or bruiſes in the feet of horſes, might, by taking proper care of them, be eaſily avoided: for in thoſe countries where horſes go moſtly bare-footed, this malady is not ſo much known; neither are thoſe horſes that go conſtantly at cart and plough ſubject to them: hence, therefore, this complaint is moſt frequently to be met with in great towns, where horſes go much upon hard cauſeways, having their ſhoes turned up with high caukers on the heels, and frequently renewed, at the ſame time their hoofs being kept too dry and hard, from ſtanding too much upon hot dry litter: hence will appear the neceſſity of complying with what is moſt natural to the hoofs of horſes, namely, coolneſs and moiſture, together with uſing ſuch a form of ſhoe as will preſs equally upon the circumference of the cruſt, and without giving it any bad unnatural ſhape. *See* Shoeing of Horses.

CORONET, or Cronet, of a Horse, is the loweſt part of the paſtern which runs round the coffin, and is diſtinguiſhed by the hair which joins and covers the upper part of the hoof.

The coronet of a horſe's foot, is that part on the very top of it where the hair grows, and falls down upon the hoof: the coronet ſhould be no more raiſed than the hoof; for, if it makes a ridge or height round it, it is a ſign that either the foot is dried up, or that there are a great many humours in the coronet, that may occaſion the crown-ſcab, and other ſores, to which that part is ſubject. *See* Feet.

CORRECTIONS and Helps for a Horse. Before a horſe is taught any leſſons, you ought to take notice, that there are ſeven helps for his furtherance therein, or to puniſh him for faults committed in his leſſons.

1. The

1. The voice; which when ſweet, and accompanied with cheriſhings, is helpful; but when rough and terrible, and accompanied with ſtrokes or threatenings, a correction.

2. The rod; which is a help in the ſhaking, and a correction in the ſtriking.

3. The bitt; a help in its ſweetneſs, the ſnaffle in its ſmoothneſs, but both corrections; the one in its hardneſs, and the other in its roughneſs; and both in flatneſs and ſquareneſs.

4. The calves of the legs; which being gently laid to the horſe's ſides, are helps; but corrections when you ſtrike them hard, as giving warning that the ſpurs are about to follow.

5. The ſtirrup and ſtirrup-leather; which are corrections when ſtruck againſt the hinder part of the ſhoulder, but helps when thruſt forward in a quick motion.

6. The ſpur; that is helpful when gently delivered in any motion that calls for quickneſs and activity, whether on or above the ground; and a correction, when it is ſtruck hard in the ſide, upon any ſloth or fault committed.

7. The ground; that is a help, when plain and ſmooth, and not painful to tread upon; and a correction when rough, deep, and uneven, for the amendment of any vicious habit that may have been contracted.

CORVET, } (in the Manage) an air, when the
CURVET, } horſe's legs are more raiſed than in the demivolts, being a kind of leap up, and a little forward, wherein the horſe raiſes both his fore-feet at once, equally advanced (when he is going ſtraight forward, and not in a circle) and as his fore-legs are falling, he immediately raiſes his hind-legs, as he did his fore; that is, equally advanced, and not one before the other: ſo that all his four legs are in the air at once; and as he ſets them down, he marks but twice with them.

Horſes that are very dull or very fiery, are improper for curvets; they being the moſt difficult air that they can make, and requiring a great deal of judgment in the rider, as well as patience in the horſe, to perform it.

COSSET: a colt, calf, lamb, &c. taken and brought up by hand, without the dam.

COSTIVENESS IN HORSES, is a hardening of the excrements in the body, ſo that without great pain the horſe cannot evacuate or void his dung; and this is often occaſioned by exceſs of provender, inſomuch that nature forces it into the bowels before it be well digeſted in the ſtomach; or again, it happens by feeding altogether upon dry meats, the which, though wholeſome and nouriſhing, contract, notwithſtanding, the excrements by the extraordinary heat they occaſion; and it may likewiſe happen by exceſſive faſting: to remedy which you may give him the following clyſter.

Take a handful of marſh mallows, decoct them in ſpring water, not exceeding a quart, add to theſe half a pint of ſallad-oil, and ſix ounces of freſh-butter, of benedicta laxativa an ounce, and inject them, holding or tying cloſe his tail by bringing it with a cord betwixt his legs, obliging him to keep it in for the ſpace of an hour; and, the better to make it work, give him a warm maſh; and, as ſoon as he has diſcharged it, give him in a drenching-horn a potion made as follows:

Take two ounces of Caſtile ſoap, diſſolve it in a pint of warm white-wine, and with it a quartern of linſeed-oil, ſweetening them all with ſugar-candy, and give it him as hot as he can drink it.

COUCHING, *among Sportſmen*, the lodging of a boar; as the diſlodging of that beaſt is called, rearing of a boar. *See* RACING *and* HUNTING.

COUGH, IN DOGS: dogs are very ſubject to a cough, with a very extraordinary choaking, which is often thought to ariſe from a cold or ſome inward diſorder; and I think it is often occaſioned by the eating of fiſh-bones. To guard againſt it, order your ſervants to throw all ſuch fiſh-bones where the dog cannot get at them. If the diſorder be from a cold, let bleeding be repeated in ſmall quantities, if neceſſary; but, if it be what is called the diſtemper in dogs, and they appear to be very low in ſpirits, bleeding is better omitted. Let meat-broth, or milk-broth, warmed, be the chief of his diet, and give the following:

Take flour of ſulphur, cold-drawn linſeed-oil, and ſalt-petre, of each one ounce; divide it into four doſes, giving him one doſe every other day; and let him have plenty of clean ſtraw to lie on: or one ſpoonful of honey daily.

COUGH, AND ASTHMA, IN HORSES. The conſequences of colds neglected or injudiciouſly treated, are ſettled habitual coughs, aſthmas, broken-wind, and conſumption.

Of coughs two are chiefly diſtinguiſhed. The one is looſe, almoſt continual, and increaſing to violence upon the leaſt motion: the other is a ſhort dry cough, preceded by a huſky hollow kind of wheezing, as if reſpiration was obſtructed by fragments of hay or corn retained in the paſſage. This laſt is the kind of cough called aſthma by moſt writers, and for which mercurial purges have been recommended. Theſe, however, Mr. TAPLIN obſerves, may perhaps be exhibited with more propriety after the adminiſtration of a courſe of the following balls, ſhould they fail in the deſired effect. Bleeding muſt firſt be performed and occaſionally repeated in ſmall quantities, till glandular inflammation and irritability are allayed, and the blood ſo attenuated by the conſtant uſe of nitre, as to render the circulation free through the finer veſſels of the lungs, from the obſtructions in which all the difficulties proceed. Bleeding having taken place with the neceſſary circumſpection as to the quantity, let two ounces of nitre be given punctually every night and morning in water, continuing one of the following balls every morning for a fortnight or three weeks, that a fair and deciſive trial may be obtained:

Take of Caſtile-ſoap, anniſeed, and liquorice-powders, each five ounces; gum-ammoniacum, three ounces; balſam of Tolu, one ounce; honey, if required to make a maſs; which divide into a dozen balls.

If there ſhould appear no abatement of the ſymptoms after the above trial, bleeding muſt be repeated, and mercurials,

mercurials had recourſe to. Mr. TAPLIN adviſes "two doſes of mercurial phyſic to be given eight days apart, and prepared by the addition of a drachm and a half of calomel to either of the purging balls (under the articles of PURGING) beſt calculated to the horſe's ſtrength and condition. After which repeat the above pectoral balls, with the addition of gum myrrh, benjamin, and Venice-turpentine, each two ounces; dividing the maſs into balls of two ounces each, repeating them every morning till the above proportion (with theſe additions) are totally conſumed."

The other kind, or that long, loud, hollow, cough, which is almoſt inceſſant, and continually increaſing upon the leaſt hurry in exerciſe, proceeds equally from irritability and the action of the ſlimy mucus upon the glands in reſpiration, as well as the vicidity and ſluggiſh motion of the blood through the finer paſſages; but yields to remedies with much leſs difficulty than the aſthmatic.

In this caſe, as in the other, bleeding muſt be premiſed, and followed by a maſh compounded of equal parts of bran and oats, into which muſt be ſtirred and diſſolved, while hot, honey four ounces. This maſh muſt be repeated, with two ounces of nitre in the water, without intermiſſion, every night and morning; giving him alſo every morning the following ball, being an improvement by Mr. TAPLIN upon the cordial ball of BRACKEN.

Take Turkey-figs, Spaniſh liquorice, anniſeed, and liquorice powders, of each four ounces; carraway-ſeeds, elecampane, and anniſated balſam, each two ounces; ſaffron, ginger (in powder) and oil of anniſeed, each ſix drachms; honey ſufficient to form the maſs; and divide it into twelve balls, of which let one be given every morning. The figs and ſaffron are to be beat to a paſte in the mortar previous to their incorporation with the other articles, the Spaniſh-liquorice is to be ſoftened over the fire by boiling in a ſmall quantity of ſpring-water, and the whole of the ingredients mixed in a proper manner.

"Theſe balls, ſays our author, are powerfully cordial and reſtorative; they promote glandular excretion, warm and ſtimulate the ſtomach to the expulſion of wind, enliven the circulation, and invigorate the whole frame, as has been ſufficiently aſcertained by their inſtantaneous effect in the chaſe, where their excellence has been repeatedly eſtabliſhed; but more particularly in deep ſwampy countries, when, after a ſevere burſt, or a repetition of ſtrong leaps, the horſe has been ſo off his wind, or, in fact, nature ſo exhauſted, as not to be able to proceed a ſtroke farther; the immediate adminiſtration of a ſingle ball has not only afforded inſtant relief, but the horſe gone through the day with his uſual alacrity."—It may be neceſſary to obſerve, that ſome young horſes are ſubject to coughs on cutting their teeth; their eyes alſo are affected from the ſame cauſe. In theſe caſes, always bleed; and, if the cough is obſtinate, repeat it and give warm maſhes; which, in general, are alone ſufficient to remove this complaint.

COUGH, IN OXEN OR COWS: this dry hoarſeneſs or cough muſt be carefully looked to, or it will grow in time to a worſe diſeaſe, therefore it is good to prevent it. Cure.

Take the diſtilled water of hyſſop, or elſe the decoction of mint and hyſſop together with the juice of leeks, and give it with oil of olives and a little garlic; for there hath not been ſo long a cough known, but this medicine hath helped it. Sometimes, if it be an eaſy hoarſeneſs, you may give them tar with honey-water, and it will help them for certain.

COUGH, RHEUM, OR CATARRH, IN SHEEP: if early care is not taken of theſe diſorders, the lungs will be inflamed, and the creature will die of an abſolute conſumption. No ſheep can be cured of theſe in the paſture where the diſeaſe was got, for that is always a damp one; the firſt thing, therefore, to be done, is to remove them into one that is dry and healthy; where the air is clear and the graſs ſweet; and apply either of the following medicines:

I.

Preſs out the juice of colt's-foot leaves, freſh elecampane-root, liquorice, and hedge-muſtard, of each equal quantities, beating them in a mortar, and moiſtening them with ſome mild ale; to a quart of the juice add five ounces of honey: give a quarter of a pint of this for a doſe, once in twenty-four hours. Little more will be required to prevent all bad conſequences, and make the cure effectual.

II.

Take an ounce of liquorice, as much of dill-ſeed and bay-berries, a handful of the tops of vervain; boil theſe when bruiſed, in a pint of verjuice of cyder; ſtrain it, and give it faſting to the ſheep as hot as may be taken; and ſo, in five mornings giving, the cure will be effected.

III.

Take an ounce of dill-ſeed, and as much of bay-berries, a handful of vervain, and two ounces of brown ſugar-candy, bruiſe and boil them in a pint of cyder, or verjuice, and give it faſting as hot as can be endured.

COUNTERPOISE. The liberty of the action and ſeat of a horſeman; ſo that in all the motions made by the horſe, he does not incline his body more to one ſide than to the other, but continues in the middle of the ſaddle, rearing equally on his ſtirrups, in order to give the horſe the proper and ſeaſonable aids.

COUNTER-TIME, is the defence or reſiſtance of a horſe that interrupts his cadence, and the meaſure of his manage, occaſioned either by a bad horſeman, or by the malice of the horſe.

COUNTER OF A HORSE. That part of his forehead which is between the ſhoulder, and under the neck.

COUNTISSES OINTMENT, uſed in removing ſores in horſes. *See* SCABBED HEELS, for its preparation.

COUP DE BRIDLE, the ſame as ebrillade. *See* EBRILLADE.

COUPLE: two things of the ſame kind ſet together, which is a pair; thus we ſay, a couple of rabbits, this being the proper term for two of them: ſo it is likewiſe uſed by hunters for two hounds, and a couple and a half for three.

COUPLE, denotes alſo a ſort of band to tie dogs.

COURSING WITH GREYHOUNDS, is a recreation in great eſteem with many gentlemen. It affords greater pleaſure than hunting in ſome reſpects. As, Firſt, becauſe it is ſooner ended. Secondly, it does not require ſo much toil. Thirdly, the game is for the moſt part always in ſight. Fourthly, in regard to the delicate qualities and ſhape of the greyhound.

There are three ſeveral courſes with greyhounds, *viz.* at the deer, at the hare, and at the fox.

For the deer there are two ſorts of courſes, the one in the paddock, and the other either in the foreſt or purlieu.

For the paddock, there muſt be the greyhound, and the terrier which is a kind of mongrel greyhound, whoſe buſineſs is to drive away the deer before the greyhounds are ſlipt, and moſt uſually a brace or leaſh are let ſlip; ſeldom more than two brace. *See* GREYHOUND.

As for the paddock courſe, *ſee* PADDOCK.

Courſes of the DEER *in the Foreſt or Purlieu.*

There are in this two ways in uſe, the one is courſing from wood to wood, and the other upon the lawns by the keeper's lodge.

If you courſe from wood to wood, you are firſt to throw ſome young hounds into the wood to bring out the deer, and if any deer come out that is not weighty, or a deer of antler, which is buck, ſore, or forel, then you are not to ſlip your greyhounds, which are held at the end of the wood, where the deer is expected to come out, which the keepers have good judgment to know.

And if you miſtruſt that the greyhounds will not kill him, then you may way-lay him with a brace of freſh greyhounds.

For courſing upon the lawn, when you have given the keeper notice, he will lodge a deer for your courſe, then by coming under the wind, you may come near enough to ſlip your greyhounds for a fair courſe.

Courſing the HARE.

The beſt way in this, is to go and find out one ſitting, which is eaſily to be done by walking croſs the lands, either ſtubble, fallow, or corn, and caſting your eye up and down; for in the ſummer ſeaſon they frequent ſuch places for fear of ticks, which are common in woods; alſo the rain and the fall of the leaf offend them.

The reſt of the year, you muſt beat up and down with poles to ſtart them out of their forms and retreats, and ſome hares will not ſtir, until they are almoſt touched, and it is a certain ſign that ſuch hares will make an excellent courſe.

If a hare ſit near any cloſe or covert, and have her head towards the ſame with a fair field behind her, you may ride with as much company as you have between her and the covert before ſhe be put up, and then ſhe is likely to make her courſe towards the champagne, for ſhe ſeldom takes the ſame way that her head is, when ſhe ſits in her form.

When a hare is juſt ſtarted, you give her ground or law, which commonly is twelve-ſcore yards or more, according to the ground where ſhe ſits, or elſe you loſe much of your ſport by putting an end to it too ſoon; and it is very pleaſant to ſee the turnings and windings, that the hare will make to ſave herſelf, which ſometimes prove effectual to her.

Courſing the FOX.

In courſing a fox, no other art is required than ſtanding cloſe, and on a clear wind, on the outſide of ſome grove, where you are to expect his coming out, and then give him head enough, otherwiſe he will turn back to the covert: for the ſloweſt greyhound will be ſwift enough to overtake him; and all the hazard of this courſe, is the ſpoiling your dog by the fox, which oftentimes happens; and, for this reaſon, you ſhould not run any that are worth much at this chaſe; but ſuch as are hard-biting dogs, that will ſeize any thing.

The Laws obſerved in COURSING.

The following were eſtabliſhed by the Duke of NORFOLK, in the reign of Queen ELIZABETH, and were ſubſcribed unto by the chief gentry, and thence held authentic.

1. That he that is choſen Fewterrer, or that lets looſe the greyhounds, ſhall receive the greyhounds matched to run together into his leaſh as ſoon as he comes into the field, and follow next to the hare-finder, or he who is to ſtart the hare until he come unto the form, and no horſeman or footman is to go before, or on any ſide, but directly behind, for the ſpace of about forty yards.

2. You ought not to courſe a hare with more than a brace of greyhounds.

3. The hare-finder ought to give the hare three ſohoes before he puts her from her form or ſeat, to the end the dogs may gaze about and attend her ſtarting.

4. They ought to have twelve ſcore yards law before the dogs are looſed, unleſs there be danger of loſing her.

5. That dog that gives the firſt turn, if after that there be neither cote, ſlip, or wrench, he wins the wager.

6. If one dog gives the firſt turn and the other bears the hare, he that bears the hare ſhall win the wager.

7. A go-by, or bearing the hare, is accounted equivalent to two turns.

8. If neither dog turns the hare, he that leads laſt to the coverts wins.

9. If one dog turns the hare, ſerves himſelf and turns her again, it is as much as a cote, and a cote is eſteemed two turns.

10. If all the courſe be equal, he that bears the hare ſhall win; and if he be not borne, the courſe ſhould be adjudged dead.

11. If

11. If a dog takes fall in a courſe, and yet perform his part, he may challenge the advantage of a turn more than he gave.

12. If a dog turns the hare, ſerve himſelf, and give divers cotes, and yet in the end ſtand ſtill in the field, the other dog, if he turns home to the covert, although he gives no turn, ſhall be adjudged to win the wager.

13. If by misfortune, a dog be rid over in his courſe, the courſe is void; and to ſay the truth, he that did the miſchief ought to make reparation for the damage.

14. If a dog gives the firſt and laſt turn, and there be no other advantage betwixt them, he that gives the odd turn ſhall win.

15. A cote is when the greyhound goeth endways by his fellow, and gives the hare a turn.

16. A cote ſerves for two turns, and two trippings or jerkins for a cote: and if ſhe turneth not quite about, ſhe only wrencheth.

17. If there be no cotes between a brace of greyhounds, but that one of them ſerves the other as turning; then he that gives the moſt wins the wager: and if one gives as many turns as the other, then he that beareth the hare wins the wager.

18. Sometimes the hare doth not turn, but wrench; for ſhe is not properly ſaid to turn, except ſhe turns as it were round, and two wrenches ſtand for a turn.

19. He that comes up firſt to the death of the hare, takes her up, and ſaves her from breaking, cheriſheth the dogs, and cleanſeth their mouth from the wool, is adjudged to have the hare for his pains.

20. Thoſe that are judges of the leaſh, muſt give their judgment preſently before they depart out of the field.

COW, *ſee* HORNED CATTLE.

COWRING, (in Falconry) a term uſed of a young hawk when ſhe quivers and ſhakes her wings, in token of obedience to the old ones.

CRABBING, (in Falconry) is when hawks ſtand too near and fight with one another.

CRACKS: a diſorder in the heels of horſes, which frequently proceeds from bad habit, but oftener from the inattention of ſtable-keepers, who ſuffer the parts below the fetlock to remain in a wet and dirty condition in ſevere weather.

In every twenty-four hours, but more particularly at each time of the horſe's returning from the road or exerciſe, let the cracks or ſcratches be waſhed for a conſiderable time with ſoap and warm water, making a lather and continuing to rub them tenderly with the ſuds, till they become pliable, and perfectly clear from every degree of ſcurf, or hardneſs at the edges, and the ſtiffened mucus, or oozing, is entirely waſhed away; then wipe it very dry with a linen cloth, and, when perfectly ſo, rub in a ſufficient quantity of camphorated ſpermaceti ointment: there is no doubt but they will ſoon ſubmit to this ſimple treatment; if, in ſome days after this method has been adopted, you perceive the cracks to be deep, the diſcharge copious, and the ſmell fœtid and ſtinking, you may naturally conclude there is a foulneſs in the habit, or an acrimony in the blood, requiring rectification; in that caſe continue your waſhings with ſoap and warm water every night and morning; take away a proportion of blood, and rub in a ſmall quantity of the ſtrong mercurial ointment, inſtead of the camphorated ſpermaceti, adminiſtering two purging balls; and, if neceſſary, afterwards a diuretic ball, every other morning, for a fortnight. Or,

Boil fenugreek-ſeed and marſhmallow-root in water, till it is as thick as a jelly; then waſh and ſoak the cracks with the liquor warm, and tie ſome of the ingredients that have been boiled ſoft round the whole part.

After the cracks have been thus dreſſed four or five times, they will grow ſoft at the edges, and the following ointment will then take effect:

Melt over the fire half a pound of yellow baſilicon, and ſtir in half an ounce of powdered verdegris; mix it well, and then let it cool: ſpread this thick upon ſome leather, and, after the part is well waſhed and cleanſed, put it on. Renew this every day till the cure is effected.

CRAMP, IN THE LEGS OF SHEEP. This diſorder frequently ſeizes the ſheep in autumn, eſpecially ſuch as have lain under the drip of trees; for which reaſon ſome call it the wood-evil. Turn the ſheep into an upland paſture, keep them warm and dry, and give the following medicine:

Bruiſe a large quantity of black hoarhound, as much hedge-muſtard, and half as much freſh valerian-root. Boil them in a ſmall quantity of water, and preſs out the juice very hard; give a quarter of a pint for a doſe once in twelve hours. Rub the legs with hot vinegar, and drive the ſheep gently about, for ſome motion will aſſiſt the medicine in procuring redreſs. Or,

Get cinquefoil, or five-leaved graſs, a handful; boil it in a pint of white wine, and give half a pint in a morning warm, but bathe the legs with the oil of ſavin.

The CRAMP AND CONVULSIONS, are the contractions of the ſinews, veins, and muſcles, in any member or part of the body of a horſe, *&c.*

The ſigns of knowing it are, that the horſe will be ſo ſtiff, that the whole ſtrength of a man is not able to bow him; he will be lame and well again, as it were in a moment.

There is alſo another kind of cramp that ſeizes upon a horſe's neck and the reins of his back, and univerſally all over his body, which may have proceeded either from a great cold, or from the loſs of blood, whereby a great windineſs enters his veins, and benumbs the ſinews.

This diſtemper alſo may be known by his head and neck ſtanding awry, his ears upright, and his eyes hollow, his mouth dry and clung, and his back will riſe like a camel's: which diſorders are to be cured by giving him ſomewhat to make him ſweat, and by loading him with warm woollen cloths.

CRAPAUDINE, OR TREAD UPON THE CORONET, is an imperfection in a horſe's foot, being an ulcer on the coronet, from whence iſſues a filthy matter, which by its ſharpneſs dries up the horn beneath the part where the tread is made, and forms a kind of groove, or hollow, down to the very ſhoe.

CRATCHES. A ſwelling horſes are liable to, on the paſtern, under the fetlock, and ſometimes under the hoof; for which reaſon it is diſtinguiſhed into the ſinewy cratches, which affect the ſinew, and thoſe upon the cronet, called quitterbones.

CRAW, OR CROP OF BIRDS, the ſame as Ingluves. *See* INGLUVES.

CRAY, a diſtemper in hawks, almoſt the ſame as the *Pantas*, proceeding from cold, by reaſon of ill diet, and long feeding with cold, ſtale meat.

CRAY-FISH-NET: cray-fiſh, or creviſes, are readily taken with the following ſort of net, and other inſtruments repreſented in the figure, Plate IV. Fig. 8.

Provide four or five ſmall nets about a foot ſquare, tie them to a round withy hoop, or the like, as you ſee marked in the figure C, D, E; procure alſo as many ſtaves as A, B, each of them five or ſix feet long, with three forks at the end, to which faſten the hoop at three equal diſtances, in ſuch manner that when you lay the net flat on the ground, the ſtick may ſtand upright on the three forks.

Provide alſo a dozen rods or ſticks, in length five or ſix feet, cleft at the ſmall end marked in the figure I, wherein you may place ſome ſkinned frogs, the guts of chickens, or the like; having baited the ſticks, go out, and where you find any likely hole in the water, there leave it, and ſo after this manner lay the reſt in the moſt likely places, and walk in and out viſiting the ſticks; when you perceive any fixed to the baits, gently move the baited end towards the middle of the water, and doubt not that cray-fiſh will keep their hold; when that is done, put your net juſt under the bait, and ſoftly lift up the bait, and as ſoon as the cray-fiſh feel the air, they let go their hold, and fall into the net.

CREANCE, } A fine, ſmall, long line and even
CRIANCE, } ſpun packthread, which is faſtened
CRIANTS, } to a hawk's leaſh, when ſhe is firſt lured.

CREAT, is an uſher to a riding maſter, or gentleman bred in the academy, with intent to make himſelf capable of teaching the art of riding the great horſe.

CREPANCE, is a cratch or chap in a horſe's legs, given by the ſpunges of the ſhoe of the hinder feet croſſing and ſtriking againſt the other hinder foot.

This cratch generates into an ulcer.

CRESCENT, (among Farriers) a horſe is ſaid to have creſcents, when the point, or that part of the coffin bone, or little foot, which is moſt advanced, falls down, and preſſes the ſole outwards; and the middle of the hoof, above the toe, ſhrinks and becomes flat by reaſon of the hollowneſs beneath it: though thoſe creſcents be really the bone of the little foot, which has left its place, and fallen downwards, ſo as the under part of the foot, that is the ſole and the toe, appears round, and the hoof above ſhrinks in.

CREST-FALLEN, is an imperfection or infirmity in a horſe, when the upper part of his neck. in which his mane grows, called the creſt, hangs either on the one ſide or the other, not ſtanding upright as it ought to do.

This proceeds for the moſt part from poverty, cauſed by ill keeping, and eſpecially when a fat horſe falls away ſuddenly upon any inward ſickneſs.

The remedy is as follows: firſt raiſe it up with your hand, and place it as it ought to ſtand: then let a perſon ſtanding on the ſide the creſt falls from, hold up the creſt with one hand, and thruſt out the bottom of it with the other, ſo that it may ſtand upright.

This being done, draw a hot iron, broad on the edge, on that ſide through the ſkin, (driving his neck firſt on the bottom of the creſt, then in the midſt of it, and laſtly at the ſetting on of the hair) and no deeper than on the other ſide, from whence the creſt falls: then gather up the ſkin with your hand, and apply two plaſters of ſhoemaker's wax, laid one againſt the other at the edge of the wound, and with ſmooth ſplints ſtay the ſkin, that it may ſhrink neither upward nor downward.

Then clip away all the ſpare ſkin, which you had gathered with your hand, with a ſharp pair of ſciſſars, and ſtitch the ſkin together in divers places with a needle-full of ſilk, and ſtitch the edges of the plaſter alſo to prevent it from breaking.

And laſt of all anoint the ſore with turpentine, honey, and wax melted together, and the places which you draw with the hot iron, with a piece of greaſe made warm, and thus do twice every day till it be whole.

But you muſt be ſure to take care that your ſplints ſhrink not: though after all the beſt cure for this malady is to let the horſe blood, and to keep him very well: for the ſtrength and fatneſs will raiſe the creſt again.

CREST-MANGINESS, IN HORSES: the cure.

Take of hog's lard, a pound; verdigris, four ounces; flour of brimſtone, four ounces; add to theſe a pint of very ſalt beef broth, and diſſolve what is to be diſſolved therein: then, after you have rubbed off the ſcabs and ſcurf till they bleed, waſh the place afflicted therewith, as hot as may well be endured, for a week together; and after that lay thereon a cloth dipped in green ointment. This will alſo hinder the hair from falling off; eſpecially the former.

CREVICE: denotes a chop, clift, or chink.

CRIB-BITING, IN HORSES, is rather a habit than a diſorder, though I may ſay it is a very bad one, and ſhould be prevented if poſſible. Young horſes are moſt ſubject to get this habit, and it is often occaſioned by uneaſineſs in breeding of teeth, and from being ill fed when they are hungry. The bad conſequences are, wearing away their teeth, ſpilling their corn, and ſucking in the air in ſuch quantities as will often give them the cholic or gripes.

The beſt method is to put a little ſtraw into his manger to prevent his biting it, and to abridge his allowance of hay; or you may put him by a wall where there is no manger, and lay his hay on the ground, and give him his oats in a bag; if this practice is purſued for any length of time, it will effectually cure him of this very pernicious habit.

CRICK, is when a horſe cannot turn his neck any manner of way, but holds it fore-right, inſomuch that

he cannot take his meat from the ground without great pain. The cure is to thruſt a ſharp hot iron through the fleſh of the neck in ſeveral places, at three inches diſtance, and rowel all of them with horſe-hairs, flax, or hemp, anointing the rowels with hog's greaſe.

CRINETS, } (with Falconers) ſmall black feathers
CRINITES, } in hawks, like hairs about the ſore.

CROATS, or CRAVATS, are horſes brought from *Croatia*, in *Hungary*, which for the moſt part beat upon the hand, and bear up to the wind: that is, bear their necks high, and thruſt out their noſes, ſhaking their heads.

The croats are ſubject to be hollow, or ſhell-toothed.

CROTCHES, (with Hunters) the little buds that grow about the top of a deer or hart's horns.

CROP, or CRAW of Birds. *See* Ingluves.

CROTELS, } (with Hunters) the ordure or
CROTENING, } dung of a hare.

CROUP of a Horse, ought to be large and round, ſo that the tops of the two haunch bones be not in view of each other, the greater diſtance between theſe two bones the better; but yet it is an imperfection, if they be too high, which is called horn hipped, though the blemiſh will in a great meaſure diſappear, if he can be made fat and luſty.

The croup ſhould have its compaſs from the haunch bone, to the very dock, or onſet of the tail, and ſhould be divided in two by a channel or hollow all along to the very dock.

A racking CROUP is when a horſe's fore quarters go right, but his croup in walking ſwings from ſide to ſide; when ſuch a horſe trots, one of the haunch bones will fall, and the other riſe, like the beam of a ballance, which is a ſign that he is not very vigorous.

CROUPADE, (with Horſemen) is a leap in which the horſe pulls up his hind legs, as if he drew them up to his belly.

Croupades differ from caprioles and balotades, in this, that in croupades the horſe does not jerk, as he does in caprioles and balotades.

CROWNET, is an invention for catching wild fowl in the winter ſeaſon, and which may be uſed in the day-time: this net is made of double thread, or fine packthread; the meſhes ſhould be two inches wide, the length about ten yards, and the depth three. It muſt be verged on the ſide with good ſtrong cord, and ſtretched out in length very ſtiff, upon long poles prepared for that purpoſe.

When you are come to the place where you would ſpread your net, open it and lay it out at its full length and breadth; then faſten the lower end of the net all along the ground, ſo as only to move it up and down; the upper end of the net muſt ſtand extended on the long cord; the further end thereof being ſtaked firſt to the earth by a ſtrong cord about five yards diſtant from the net: place this cord in an even line with the lower edge of the net: the other end of the cord muſt be at leaſt twenty-five yards, to reach unto ſome natural or artificial ſhelter, by the means of which you may lie concealed from the fowl, otherwiſe you cannot expect any good ſucceſs.

The net muſt be placed in ſuch exact order that it may give way to play on the fowl, upon the leaſt pull of the cord, which muſt be done ſmartly, leſt the fowl ſhould prove too quick for you.

This device may be uſed for pigeons, crows, or the like birds, in the corn-fields newly ſown, as alſo in ſtubble-fields, provided the ſtubble do conceal the net from the fowl.

It may alſo be uſed for ſmall birds at barn doors; but then you muſt lay for them ſome train of corn and chaff to entice them to the net, lying concealed.

This crownet may alſo be ſpread to great advantage and pleaſure in the mornings and evenings, where you know their haunts are, at which time in hard weather fowls are wont to fly in great flocks, to and from the land, with and againſt the wind, and then they fly cloſe to the ground in open countries and low lands, which generally are not full of incloſures, and when they are within reach of your net, let go and it will riſe over them, and bring them back to the ground with a ſmart blow.

CROWNED; a horſe is ſaid to be crowned, when, by a fall or other accident, he is ſo hurt or wounded in the knee, that the hair ſheds and falls off without growing again.

CROWNED Top, or Tops, (with Hunters) are the firſt head of a deer, ſo called becauſe the croches are raiſed in form of a crown.

CROWN Scab in Horses, a white or mealy ſcurf, cauſed by a burnt, yellow and malignant matter that breaks forth at the roots of the hair, where it ſticks to the ſkin and makes it frizzled and ſtare, and at laſt ſcalds it quite off. Of this there are two kinds.

1. The dry crown ſcab, that is without moiſture.

2. The moiſt one, which is ſo by reaſon of a ſtinking water iſſuing out of the pores, and communicating its ſtench and moiſture to the neighbouring parts.

It appears on the coronet, and often all over the paſtern to the joint, the part being much ſwelled, and will run up almoſt to the knee if not timely prevented.

The cure may be effected by taking two ounces of *Brazil* tobacco cut ſmall, or at leaſt ſtripped from the ſtalks, and infuſe it for twelve hours in half a pint of ſtrong ſpirit of wine, ſtirring it every hour, that the ſpirit of wine may penetrate the ſubſtance of the tobacco, and extract all its tincture.

Chaſe the ſcab with this without taking off the ſkin, and afterwards rub it very hard with a handful of tobacco, repeating this once a day till it is well. Or you may let the part be dreſſed with a compoſition of equal parts of marſh-mallows, ointment, and baſilicon ſpread on tow, and applied all round the coronet. At the ſame time a doſe or two of phyſic ſhould be given, and afterwards the diuretic balls mentioned in a following article on the greaſe. The common practice is, to waſh the parts with a vitriol water, but the above is much ſafer and more expeditious.

CRUPPER, the buttocks of a horſe, the rump: alſo a roll of leather put under a horſe's tail, and drawn up by the thongs to the buckle behind the ſaddle, ſo as to keep him from caſting the ſaddle forwards on his neck.

CRUPPER BUCKLES, are large ſquare buckles fixed to the ſaddle-tree behind, to faſten the crupper, each buckle having a roller or two to make it draw eaſily.

CUB, a young bear, or bear's whelp; (among Hunters) a fox and a martern of the firſt year are alſo called cubs.

CUD, LOST, in ox or cow: theſe beaſts ſometimes loſe their cud by chance, and ſometimes by poverty and ſickneſs; and if ſo, they will mourn.

Take four leven of rye-bread and ſalt, and beat it in a mortar with man's urine and barm; make a large ball or two of it, put them down the throat of the beaſts, and they will do well.

Alſo take part of the cud of another beaſt, blend it with the rye bread and four leven and ſalt, pound them in a mortar, ſo make it into balls, and give it to the beaſts, and they will get their cud again for certain. If cramped, rub their knees, legs, and thighs, with ſalt and oil. *See* HORNED CATTLE.

CUD, LOST, in ſheep, to reſtore:

Mix powder of allum with clay, ſteep it in the urine of a man all night, then take it out and make it up in little pellets, dry them in a fire-ſhovel or oven, and force them down the ſheep's throat ſix or ſeven times, at diſtinct hours, giving every time after them a ſpoonful of elder vinegar, and the cud will be reſtored.

CULVER, an old word for a pigeon or dove, whence come culver-houſe or dove-houſe.

CURB, is a chain of iron made faſt to the upper part of the branches of the bridle, in a hole, called the eye, and running over the beard of a horſe.

CURB OF A HORSE'S BRIDLE conſiſts of the following parts:

1. The hook fixed to the eye of the branch.
2. The chain of the SS, or links.
3. The two rings or mails. Large curbs, provided they are round, are always the moſt gentle.

But care muſt be taken that it reſt in its proper place a little above the beard, otherwiſe the bitt-mouth will not have the effect that may be expected from it.

To give a Leap upon the CURB, is to ſhorten the curb by laying one of the mails or S, like joints of the chains over the reſt.

CURB, IN HORSES, differs only from a ſpavin, inaſmuch as the ſpavin riſes among the bones on the fore-part of the hock, and the curb riſeth on the hind-part, and forms a large tumour over the back of the hind leg, and often extends itſelf from below the heel of the hock downwards. It proceeds from hard riding, ſtrains, kicks, or blows; and is attended with ſtiffneſs, pain, and lameneſs.

Bliſtering two or three times generally effect a cure; but, if this fails, and the curb is obſtinate, firing is the only remedy, but let it be done with a thin iron, making a line down the middle from the top to the bottom; you may then apply a mild bliſtering-plaiſter, and this will cure it effectually.

To CURTAIL A HORSE, *i. e.* to dock him, or cut off his tail.

Curtailing was not uſed in any nation ſo much as till lately in *England*, by reaſon of the great carriage, and heavy burthens our horſes are continually employed in carrying or drawing; the *Engliſh* were ſtrongly opinionated, that the taking off theſe joints, made the horſe's chine or back much ſtronger, and more able to ſupport a burden; but it is not now ſo much practiſed as it was.

The manner of performing the operation is, firſt to feel with your finger and thumb, till you have found the third joint from the ſetting on of the horſe's tail, then raiſe up all the hair, and turn it backwards; then taking a very ſmall cord, and wrapping it about that joint, and pulling it as tight as poſſible it can; which you muſt do three or four times about the tail, with all poſſible tightneſs, and make faſt the ends of the cord: after which take a piece of wood with the end ſmooth and even, of the juſt height with the ſtrunt of the horſe's tail, and ſet it between the horſe's hinder legs, having firſt trammelled all his four legs, ſo that he can no way ſtir, lay his tail upon the wood, taking a very ſharp ſtrong knife made for that purpoſe, ſet the edge thereof as near as you can gueſs between the fourth and fifth joint, then with a large ſmith's hammer ſtriking upon the back of the knife, cut the tail off.

If you ſee any blood iſſue, you may know that the cord is not ſtrait enough, and therefore ſhould be drawn ſtraiter; but if no blood follow, then it is well bound.

When you have done this, take a red hot burning iron, made of a round form, of the full compaſs of fleſh of the horſe's tail, that the bone thereof may not go through the hole; with this ſear the fleſh, till it be encruſted; and in the ſearing you will clearly ſee the end of the vein ſtart out like pap heads; but you muſt continue ſearing, till you ſee all that was moiſt, to be ſmooth, plain, and hard, ſo that the blood cannot break through the burning; then you may unlooſe the cord, and after two or three days, when you perceive the ſore begin to rot, do not fail to anoint it with freſh butter, or hog's greaſe and turpentine, till it be healed.

CURVET. *See* CORVET.

CUT. To cut or geld a horſe, is to render him impotent, after which he is called a gelding, by way of diſtinction from a ſtone-horſe.

Commonly your rouſſons, (*i. e.* your ſtrong, thick-bodied Dutch horſes) are ſtone-horſes, and not geldings.

The beſt way to cure a horſe biting and kicking, is to geld him.

To CUT THE ROUND, OR CUT THE VOLT, is to change the hand when a horſe works upon volts of one tread, ſo that dividing the volt in two, he turns and parts upon a right line to recommence another volt.

In this ſort of manage the riding maſters are wont to cry, cut the round.

CUTTING, OR INTERFERING, is when the feet of a horſe interfere, or with the ſhoe one hoof beats off the ſkin from the paſtern joint of another foot. This is occaſioned by bad ſhoeing, wearineſs, weakneſs, or not knowing how to go, whereby the feet entangle.

DACE } FISHING; } Theſe two fiſhes, as alſo
DARE } a roach, are much of the ſame

ſame kind, both in manner of feeding, cunning and goodneſs; and commonly in ſize.

The haunts of dace are gravelly, ſandy, and clayey bottoms; deep holes that are ſhaded; water-lily leaves, and under the foam cauſed by an eddy: in hot weather they are to be found on the ſhallow, and are then beſt taken with an artificial fly, graſshoppers, or gentles, as hereafter directed.

Dace ſpawn about the latter end of *March*, and are in ſeaſon about three weeks after; they are not very good till about *Michaelmas*, and are beſt in *February*.

Baits for dace, other than thoſe mentioned by WALTON, are the oak-worm, red-worm, brandling, gilt-tail, and indeed any worm bred on trees or buſhes, that is not too big for his mouth: almoſt all kinds of flies and caterpillars.

Though dace are as often caught with a float as roach, yet they are not ſo properly float fiſh; for they are to be taken with an artificial gnat, or ant-fly, or indeed almoſt any other ſmall fly in its ſeaſon: but in the *Thames*, above *Richmond*, the largeſt are caught with a natural green dun graſshopper, and ſometimes with gentles; with both which you are to fiſh, as with an artificial fly; they are not to be come at till about *September*, when the weeds begin to rot; but when you have found where they lie, which in a warm day is generally on the ſhallow, 'tis incredible what havock you may make: pinch off the firſt joint of the graſshopper's legs, put the point of the hook in at the head, and bring it out at the tail; and in this way of fiſhing you will catch chub, eſpecially if you throw under the boughs.

But this can be done only in a boat, for the management whereof be provided with a ſtaff, and a heavy ſtone faſtened to a ſtrong rope of four or five yards in length; faſten the rope to the head of the boat, which whether it be a punt or a wherry, is equally fit for this purpoſe, and ſo drive down with the ſtream: when you come to a ſhallow, or other places where the fiſh are likely to lie, drop the ſtone, and, ſtanding in the ſtern, throw right down the ſtream, and a little to the right and left: after trying about a quarter of an hour in a place, with the ſtaff puſh the boat about five yards down, and ſo throw again. Uſe a common fly line about ten yards long, with a ſtrong ſingle hair next the hook.

It is true, there is leſs certainty of catching in this way than with a float and ground bait; but to thoſe who live near the banks of that delightful river, between *Windſor* and *Iſleworth*, and who can take advantage of a ſtill, warm, gloomy day; to ſuch it will afford much more diverſion than the ordinary inartificial method of fiſhing in the deeps for roach and dace.

In fiſhing at bottom for roach and dace, uſe for ground-bait, bread ſoaked about an hour in water, and an equal quantity of bran; knead them to a tough conſiſtence, and make them up into balls, with a ſmall pebble in the middle, and throw theſe balls in, otherwiſe they will draw the fiſh beyond the reach of your line.

Fiſh for roach within ſix, and for dace within three inches near the bottom.

They will bite at any fly, but eſpecially at the ſtone caddis fly, or may fly, the latter end of *April*, and moſt part of *May*: it is an excellent bait, floating at top of the water: of which you may gather great quantities from the reeds and ſedge, by the water-ſide: or from hawthorn buſhes, that grow near the bank of a ſhallow gravel ſtream, upon which they greatly delight to hang: and alſo at ant-flies, of which the blackeſt are the beſt, found in mole-hills, *June*, *July*, *Auguſt*, and *September*; which you may preſerve for your uſe, by putting them alive into a glaſs bottle, having firſt put into it ſome of the moiſt earth from whence you gathered them, with ſome of the roots of the graſs of the ſaid hillocks, and laying a clod of earth over the bottle: but if you would preſerve them above a month, put them into a large runnet, which has been firſt waſhed with water and honey on the inſide, and then you may preſerve them three months: but the beſt time to make uſe of them, is when they ſwarm, which is generally about the latter end of *July*, and the beginning of *Auguſt*.

This ſort of fiſh, in a warm day, rarely refuſes a fly at the top of the water; but remember when you fiſh under water for him, it is beſt to be within a handful, or ſometimes more, of the ground.

But if you would find dace or dare in winter, then, about *All-hollow-tide*, wherever you ſee heaths, or ſandy grounds plowing up, follow the plough, and you will find a white worm, with a red head, as big as the top of a man's little finger, very ſoft; that is nothing but the ſpawn of a beetle; gather theſe, and put them into a veſſel, with ſome of the earth from whence they were taken, and you may keep them all the winter for an excellent bait.

DAPPLE-BLACK, is a black horſe, that in his black ſkin or hair has ſpots and marks which are yet blacker, and more ſhining, than the reſt of the ſkin.

When bay horſes have marks of a dark bay, we call them dapple bays.

DAY-NET. A net generally uſed for taking ſuch ſmall birds as play in the air, and will ſtoop either to prey, gig, or the like; as larks, linnets, buntings, &c. The time of the year for uſing this net, is from *Auguſt* to *November*; and the beſt time is very early in the morning: and it is to be obſerved, that the milder the air, and the brighter the ſun is, the better will be the ſport, and of longer continuance. The place where this net ſhould be laid, ought to be plain champagne, either on ſhort ſtubbles, green lays, or flat meadows, near corn fields, and ſomewhat remote from towns and villages: you muſt be ſure to let your net lie cloſe to the ground, that the birds creep not out and make their eſcape.

The faſhion of this net is deſcribed in Plate V. Fig. 1. It is made of a fine packthread, with a ſmall meſh, not exceeding half an inch ſquare: it muſt be three fathom long, and but one broad; the ſhape is like the crow net, and it muſt be verged about after the ſame manner, with a ſmall but ſtrong cord, and the two ends extended upon two ſmall, long poles, ſuitable to the breadth

breadth of the net, with four ſtakes, tail-ſtrings, and drawing-lines.

This net is compoſed of two, which muſt be exactly alike; and are to be laid oppoſite to each other, ſo even and cloſe, that when they are drawn and pulled over, the ſides muſt meet and touch each other.

You muſt ſtake this net down with ſtrong ſtakes, very ſtiff on their lines, ſo that you may with a nimble twitch caſt them to and fro at pleaſure; then faſten your drawing cords, or hard-lines (of which there muſt be a dozen at leaſt, and each two yards long) to the upper end of the foremoſt ſtaves: and ſo extend them of ſuch a ſtraitneſs, that with a little ſtrength they may raiſe up the nets, and caſt them over.

Your net being thus laid, place your gigs, or playing wantons, about twenty or thirty paces beyond, and as much on this ſide your nets; theſe gigs muſt be faſtened to the tops of long poles, and turned into the wind, ſo as they may play to make a noiſe therein. Theſe gigs are a ſort of toys made of long gooſe-feathers, like ſhuttle-cocks, and with little ſmall tunnels of wood, running in broad and flat ſwan-quills, made round, like a ſmall hoop; and ſo with longer ſtrings faſtened to the pole, will, with any ſmall wind or air, move after ſuch manner, that birds will come in great flocks to play about them.

When you have placed your gigs, then place your ſtale; which is a ſmall ſtake of wood, to prick down in the earth, having in it a mortice-hole, in which a ſmall, long and ſlender piece of wood, about two feet long, is faſtened, ſo as it may move up and down at pleaſure: and faſten to this longer ſtick, a ſmall line, which running through a hole in the aforeſaid ſtick, and ſo coming up to the place where you are to ſit, you may, by drawing the line up and down with your right hand, raiſe up the longer ſtick from the ground, as you ſee occaſion.

Faſten a live lark, or ſuch like bird, to this longer ſtick, which with the line making it to ſtir up and down by your pulling, will entice the birds to come to your net.

There is another ſtale, or enticement, to draw on theſe birds, called a looking-glaſs; (*ſee Article* LARK) which is a round ſtake of wood, as big as a man's arm, made very ſharp at the end, to thruſt it into the ground: they make it very hollow in the upper part, above five fingers deep; into which hollow they place a three ſquare piece of wood, about a foot long, and each two inches broad, lying upon the top of the ſtake, and going with a foot in the hollowneſs: which ſaid foot muſt have a great knob at the top, and another at the bottom, with a deep ſlenderneſs between, to which ſlenderneſs you are to faſten a ſmall packthread, which running through a hole in the ſide of the ſtake, muſt come up to the place where you ſit. The three-ſquare piece of wood which lies on the top of the ſtake, muſt be of ſuch a true poiſe and evenneſs, and the foot in the ſocket ſo ſmooth and round, that it may whirl and turn round upon the leaſt touch; winding the packthread ſo many times about it, which being ſuddenly drawn and as ſuddenly let go, will keep the engine in a conſtant round motion: then faſten with glue, upon the uppermoſt flat ſquares of the three-ſquare piece, about twenty ſmall pieces of looking-glaſs, and paint all the ſquare wood between them, of a light and lively red; which in the continual motion will give ſuch a reflection, that the birds will play about to admiration until they are taken.

Both this and the other ſtale, are to be placed in the midſt between the two nets, about two or three feet diſtance from each other; ſo that in the falling of the nets, the cords may not touch or annoy them: neither muſt they ſtand one before or after another, the glaſs being kept in a continual motion, and the bird very often fluttering. Having placed your net in this manner, as alſo your gigs and ſtales, go to the further end of your long drawing lines and ſtale-lines, and having placed yourſelf, lay the main drawing-line acroſs your thigh, and with your left, pull the ſtale-line to ſhew the birds; and when you perceive them to play near and about your nets and ſtales, then pull the net over with both hands with a quick, but not too haſty, motion; for otherwiſe your ſport will be ſpoiled.

You muſt always remember to lay behind you, where you ſit, all the ſpare inſtruments and implements to be uſed; as the ſtakes, poles, line, packthread, knitting-pin, and needle, your bag with ſtales, a mallet to knock in the ſtakes upon occaſion: and, laſtly, be ſure that the firſt half dozen of birds you take, be kept alive for ſtales; for you muſt not be unprovided therewith upon any account.

Having thus treated of the day-net, (the ſame being commonly uſed by all birdmen) I ſhall give the explanation of the ſeveral parts by letters, as exhibited, Plate V. Fig. 1.

A, ſhews the bodies of the main net, and how they ought to be laid. B, the tail-lines, or the hinder lines, ſtaked to the ground. C, the fore-lines, ſtaked alſo to the ground. D, the knitting-needle. E, the bird-ſtale. F, the looking-glaſs ſtale. G, the line which draws the bird-ſtale. H, the line that draws the glaſs-ſtale. I, the drawing double lines of the net which pulls them over. K, the ſtakes which ſtake down the four nether points of the net, and the two tail-lines. L, the ſtakes that ſtake down the fore-lines. M, the ſingle line, with the wooden button to pull the net over with. N, the ſtake that ſtaketh down the ſingle line, and where the man ſhould ſit. O, the wooden mallet. P, the hatchet: and Q, the gig.

DECEIVE; a horſe is ſaid to be deceived, upon a demivolt of one or two treads: when working (for inſtance) to the right, and not having yet finiſhed above half the demivolt, he is preſſed one time or motion forwards, with the inner legs, and then is put to a reprize upon the left, in the ſame cadence with which he began; and thus he regains the place where the demivolt had been begun to the right, and works to the left.

Thus you may deceive a horſe upon any hand.

DECOY.

DECOY-BIRD, a bird made uſe of to call others of the ſame ſpecies to them: they are uſually kept in a cage, and from thence decoy birds into the nets or ſnares prepared for them.

The hen partridge is the bird chiefly made uſe of in *France* for this purpoſe, which is placed at the end of balks, or ridges, where they ſpread their nets to draw in the cock that hears her.

DECOY-DUCK, a duck that flies abroad, and lights into company of wild ones; and by being become acquainted with them, by her allurements, ſhe draws them into the decoy-place where they become a prey.

DECOY-POND, a place made on purpoſe, by the means of which great numbers of ducks, teal, &c. are drawn into a ſnare; and that by the ſubtilty of a few of their own kind, which, from the egg, are trained up to come to hand for the ſame purpoſe.

The manner of doing it, and the making the decoy pond, with the ſeveral apartments belonging to it, require a long diſcourſe; but indeed no particular rules and directions can be given therein, as being variouſly made, according to the ſituation of the place, which muſt be conſidered: ſo that ſuch perſons who would make one, would do beſt to view ſome that are already made: they are frequent in divers parts of the kingdom, but eſpecially in *Lincolnſhire*, *Cambridgeſhire*, and ſuch fenny countries; for the ground muſt be moiſt, mooriſh, and fenny, with the conveniency, if poſſible, of a river running through or by it.

I ſhall therefore only ſay, that the place where thoſe decoy ducks entice them, muſt not be very broad, but ſet thick on both ſides with oſiers, and there muſt be nets at the top, and entrance, to be let down by the man who is to attend it, and who, when he ſees the ducks all entered in, draweth the net, by which means they are taken.

And great caution is to be uſed, that the nets are not let down till all the ducks are within the limits of the nets; for if any ſhould eſcape, it would be very prejudicial, for ſuch a duck, or ducks, would be ſhy, and ſcarcely be drawn into the like ſnare again, which would occaſion others in the company to be ſhy too, and the decoy would be much prejudiced thereby.

DEAFNESS. The cuſtom of cutting away the hair out of horſes' ears in order to make them look better, ſubjects them to cold, and is frequently the cauſe of deafneſs for a time.

DEER, a wild beaſt of the foreſt. *See* STAG and HART.

DEER-HAYES, engines, or large nets, made of cords, to catch deer in.

DEER-NECKS IN HORSES. *See* NECKS.

DEFAULT, a term in hunting, when the hounds have loſt their prey in their chaſe.

The chief conſiderations at default are, how long the hare has been on foot, and how far the hounds make it good? If ſhe has not been run half her time (as near as judgment can be made) the huntſman muſt try expeditiouſly a wide circle, changing his dogs hard and quick on the highways, and ſo perſiſt in trying circle within circle, till he returns to the place the dogs threw up at. On the other hand, if ſhe has been drove hard three parts of her time, or is near dead run, ſhe will only leap off a few rods, and *quat*, until one or other of the dogs jumps upon her. Therefore, in ſuch caſe the huntſman needs only to try a ſmall circle, not nimble, but ſlow and ſure, with great caution and care, for the compaſs being ſo little, he has no occaſion to draw ſo haſty about as if twice as large.

Take heed of talking too loud to the hounds, as there are dogs of ſhy, fearful tempers, that will ſcarce bear ſpeaking to. Give me a dog of patience and good temper, that does not hunt becauſe it is his buſineſs, but loves it naturally; one with a moderate voice and clear, that ſpeaks to an old hound at default, quick, but not noiſy, and cheriſhes him nimbly, very often, and in a tone that enforces life and courage, and compels him to ſtop perpetually.

Beware unhaunted ground, the inconveniency attending it will be too apparent; avoid likewiſe the prevailing fault of leaving the recovery to endeavour to prick; it is not the huntſman's buſineſs, but the company in the field; therefore he ſhould not upon any account attempt it. For whilſt he is moping about, the dogs throw up, not one in twenty has his noſe to the ground. If it happens to be a long dead default, pay ſome regard, huntſmen, to the tender-noſed babbling dog you diſregard in the morning; the delicacy of his noſtrils may be ſuſceptible of the ſcent a long time later than a ſtauncher hound. You have ſaid ſuch and ſuch a dog deſerves hanging, he will open at nothing at all, ſay you; but beware, my friend, if it is not the contrary, and owing to his ſuperior excellence of ſcenting: for a hare that relieved at twelve at night, the tender hound you condemn will challenge cheerily next morning, and in the preſent diſheartening caſe, if he does but open, it may encourage ſome ſtauncher hound to ruff in and ſtoop; which, after a long tedious default, he would not otherwiſe do. Huntſmen diſtreſſed, to make their dogs try and ſtoop (when it has been found which way the hare has baulked them) have wrung an old hound's ears ſo cleverly, he has roared as if he had hit upon a burning ſcent, which has invited the pack together, and given them ſuch ſpirits, every dog has ſtooped and tried it.

On recovery, judgment may be made from the time the hare has run, and time ſhe has *quat*, how long ſhe may be likely to ſtand; the huntſman is never to quit the default whilſt day-light and weather permit: if the hare is not killed or taken up, there is no good reaſon why it is not hit off, and it ſhould be a ſtanding maxim, that it is ever as eaſy to recover a loſt hare as to ſtart a freſh one.

By a long *quat*, after a moderate hunt, a hare often becomes ſtiff, therefore the hunters ſhould preſs in upon the dogs, eſpecially in covert; many hares are eat up by the hounds for want of forming ſome ſuch judgment, and then the ſimple huntſman damns and ſwears at the dogs; whereas his own deſert ſhould be a cudgel for his ſtupidity, the hounds being entitled to every hare they hunt; it is the chief reward of their labour and merit.

There is another prevailing notion, very vulgar, much talked of, and leſs underſtood, that the longer a hare has been hunted, the weaker the ſcent grows. I never found ſuch an alteration, and if any judgment is allowed to be made from the behaviour of the hounds, the old ſtaunch dogs will be found to rate on, towards the concluſion of the hunt, with additional vigour, not from decay of ſcent, but the contrary; whence they become, every inch they go, more ſenſible of their near approach to the hare, than all the hunters in the field.

But ſhould it be maintained, the ſmell does really decreaſe, the more a hare is preſſed, what can it be owing to? To lay it down as fact, without offering ſome reaſon, is certainly a very arbitrary determination. Is it becauſe ſhe is run out of wind? If that is allowed, caſuiſts, who maintain hounds hunt the foot, muſt give up the argument. For what reaſon can be aſſigned why a hare's feet, immediately before her death, do not leave as ſtrong and equal ſcent as at ſtarting.

Hares, or other creatures, hard run, perform their inſpiration and expiration very quick, at leaſt ſix times in proportion for once they otherwiſe would, if cool and not urged. Now, if ſix expirations, under ſevere purſuit, are equal to one, when a hare is juſt ſtarted, what difference can there be in the ſcent?

It may be alledged, the ſcent lies ſtronger at the firſt, becauſe it makes its return from a full ſtomach, or that at ſtarting the lungs having not ſuffered much from diſtention, ſhe breathes free, which running low to the earth, intermixes better with the herbage. On the other hand, that a hare long hunted runs high, and of courſe emits her breath farther off from the ſurface, therefore more liable to be ſooner ſeparated, and overcome by wind and air.

To the firſt part I anſwer, the faſter a hare runs, the longer ſhe ſtretches; and the lower ſhe lies to the ground, the farther the hounds are behind; and her breath (though expired ever ſo free) remains a long time, in proportion to the diſtance before the dogs come up to enjoy it.

In the ſecond place, the hard-hunted hare makes her ſtretches ſhorter, which brings her body naturally more upright and high from the ſurface, and the ſcent hereby is more liable to be ſooner overcome by wind and weather. But then as ſhe breathes quick in proportion, and ſhortens her pace in a ſenſible degree, the hounds, ſo much as ſhe ſhortens, ſo much do they haſten, being drawn on by increaſing ſcent, even until madam feels them at her heels.

Another reaſon, more natural and eaſy than either of the aforeſaid, why a hare, towards the end of the hunt, is often difficult to be killed, is, that if ſhe holds her circuit, ſhe confines her works in a much ſhorter compaſs, doubles here and there over and over; ſhifts, redoubles, and tries all places for reſt and ſecurity, making a great deal of foiling in a little ſpace, which variety of equal ſcent puzzles the dogs exceedingly.

DEMI-VOLT. *See* VOLT.

DESULTOR. A vaulter or leaper, who, leading one horſe by the bridle, and riding another, jumped from the back of one to the other, as the ancient cuſtom was after they had run ſeveral courſes or heats. This practice required great dexterity, being performed before the uſe of either ſaddles or ſtirrups. The cuſtom was practiſed in the army, when neceſſity required it; but chiefly among the *Numidians*, who always carried two horſes, at leaſt, with them for that purpoſe, changing them as they tired. The Huſſars have ſtill ſome remains of it; and we now ſee the moſt dexterous feats of this kind, that perhaps were ever known in any age or nation, performed by our countrymen, Mr. ASTLEY, Mr. HUGHES, *&c.*

DEVUIDER, a term in the academies, applied to a horſe, that in working upon volts, makes his ſhoulders go too faſt for the croup to follow; ſo that inſtead of going upon two treads, as he ought, he endeavours to go only upon one: which comes from the reſiſtance he makes in defending againſt the heels, or from the fault of the horſeman, that is too haſty with his hand. *See* HASTEN.

DIABETES, or involuntary diſcharge of urine.

A diabetes is, when a horſe piſſes thin and pale urine, and that frequently, and in greater quantity than is proportioned to what he drinks; if this diſeaſe continues, it ſoon proves fatal; and, indeed, it is rarely cured; for the horſe ſoon loſes his fleſh, his appetite decreaſes, his ſtrength fails, and death ſpeedily enſues. It may be noted, that ſome young horſes, when they are backed, piſs themſelves through fear, and paſs a great quantity; but in this caſe, gentle uſage is all that is requiſite.

If a cure is attempted, (which ſometimes is ſucceſsful in young horſes) let the food be dry, and ſuch as requires the leaſt water; as meſhes, and corn ſprinkled with water: and what little hay is given ſhould be of the beſt ſort, and given often in ſmall quantities, well ſprinkled with water.

Make freſh lime-water three times a day: as ſoon as it clears, and before it cools, give a quart of the clear water each time, and every night and morning give the following:

Take of Peruvian bark, finely powdered, an ounce and an half; roach allum, half an ounce; treacle enough to make a ball.

If theſe do not ſucceed, give a quart of allum poſſet, three times a day, inſtead of lime water.

Lime-Water.

Take of quick-lime, that is light and but lately burnt, one pound; put it into an earthen veſſel, and pour upon it two gallons of water; let them ſtand until the lime is ſettled, then the clear water may be poured off, and muſt be kept well corked in bottles, if not immediately uſed.

Alum-Poſſet.

Take a pint of milk, and two drachms of alum finely powdered; boil them together, until the curd is well ſeparated; then pour off the thin liquor, which is called whey, or poſſet.

Any other aſtringents, except alum, ſhould not be freely

freely uſed; for by making the body coſtive, they increaſe the diſcharge by urine.

DIAPHRAGM. *See* PLEURA.

DIET OF HORSES muſt of courſe depend on the produce and circumſtances of the different countries. The horſe, although univerſally a graniverous animal, yet varies in a degree, from the general rule of his nature, in ſome countries: amongſt the Tartars, and other inhabitants of the frozen regions of the north, he is ſaid to be fed during the winter ſeaſon upon fiſh.

The natural food of the horſe is the ſimple herbage of the field, graſs, and on that alone he can be conſtantly kept in the higheſt ſtate of health and vigour, ſo long as he ſhall not be required to labour; and whilſt he is employed in labour, graſs in ſome form, either dried or green, ſeems abſolutely neceſſary to his maintenance in a healthy ſtate. Hay, ſtraw, and corn of the various kinds, have been from the earlieſt times the common food of horſes; but in *England*, and indeed *France* and *Germany*, during latter periods eſpecially, they have rejected all other ſpecies of horſe corn, from a well grounded preference in favour of oats and beans, the latter for draught-horſes chiefly, or as ſubſtantial auxiliaries to the oats: oats imparting as ſtrong a nouriſhment as the conſtitution of the horſe will properly bear, are at the ſame time of an obſterſive and cleanſing nature, and are, moreover, the beſt and cheapeſt indoor fattening for almoſt all animals.

The ſpecies of corn uſually given to horſes in many countries is barley, and the bulky provender, ſtraw; both which, in warm climes, are ſaid to be nearly equal in nutriment to our hay and oats. With us, barley is apt to ſcour horſes and make their ſtale red like blood. Wheat is often given to the horſes of the great upon the continent; and it is ſaid, when PHILIP of *Spain* was in this country, his jennets were fed upon wheat during a time of ſcarcity, which gave umbrage to the people.

There ſeems to exiſt no perceptible difference of quality between the white and the black oat, being equal in weight and thinneſs of ſhell: thoſe, and their being ſhort, plump, and free from tail, are their well-known criterions of goodneſs; it is equally well known, they ſhould be ſome months old when uſed. New beans are improper for horſes, ſwelling in their maw, and griping them in a very dangerous manner. The remedy is to dry them on a kiln. Old beans ſhould be ſplit, and given either with bran or chaff. Cart-horſes have been near ſeven years fed upon beans, without finding any detrimental effect therefrom; but the horſes laboured exceſſive hard. Beans contain more ſolid nutriment than oats, but of a leſs ſalubrious nature.

Grains conſtantly uſed, looſen a horſe, and impoveriſh his blood; bran ſcours and weakens the entrails; both of them are good occaſional dietetic alteratives.

Carrots are ſaid to purify and ſweeten the blood, to amend the wind, and to repleniſh after the waſtings occaſioned by diſeaſe, or inordinate labour. Some have been accuſtomed to uſe them for years, in all forms, and to all deſcriptions of horſes. They are either given in ſpring and autumn, to high-fed horſes, as a change of diet, at the rate of one feed *per* day, in lieu of a feed of corn, or as full ſubſiſtence to others. They ought to be waſhed clean, and, if large, cut into flat and ſizeable pieces. They are occaſionally to be purchaſed in the London markets, at a price ſufficiently moderate for horſe food, perhaps at ten pence *per* buſhel. The quantity for a feed is from half a peck to a peck.

The orderly periods of feeding with corn, in this country, are morning, noon, and night; the quantities each time either a quarter, or half a peck, with, or without, about two handfuls of beans, according to the horſe's ſtate of body. Much greater care than is common, ought to be had to ſifting the oats clean from duſt, and dung of mice. Water ſhould be allowed without fail twice a day How well ſoever a horſe may ſhift with little or no water, whilſt abroad and feeding upon ſucculent meat, it is indiſpenſible to him in the ſtable; and ofttimes much miſchief enſues from its being withheld: coſtiveneſs, inflammation, gripes, and the various conſequent morbid derivatives; perpetual longing, and the danger of exceſs upon every opportunity.

The well-known uſe of hay is to dilate the body of the horſe, to ſatisfy his appetite with bulk and quantity, as corn does with compact and ſolid nutriment. Engliſh hay, the beſt in the world, it is true, contains great nouriſhment, and will keep a horſe, and even fat him; but he is unable to labour upon hay alone, and BRACKEN obſerves, that it injures the ſight of horſes to keep them ſo, in particular if ſuddenly taken from good keep and full feeding. Hard upland hay is the proper kind for nags and coach-horſes, and it ought to be of fine colour, fragrant ſmell, and full of flower. Clover hay, and that of the artificial graſſes in general, from its groſſneſs, is appropriate to cart-horſes. Without attempting to aſcertain the preciſe quantity, it may be ſaid, that hay ſhould be given as often as a horſe has a keen appetite for it; but great care ſhould be taken, that ſo much be never allowed at once, that he leave, and blow upon it. There lies the ſecret, even in fatting animals to profit; a thing not ſo often done as ſuppoſed. At night a conſiderable quantity of hay is left in the rack, abſolutely neceſſary, no doubt, to hard-working horſes, whoſe moſt leiſure time for feeding is the night; of the propriety of the meaſure, for horſes kept in a ſtate of luxury,

" Faſting is nature's ſcavenger.

The ancients, according to XENOPHON, fed their horſes but twice a day; the modern Turks, Arabians, and Moors, feed only once with corn, that is, barley; or as ſome aſſert, only once in twenty-four hours, when they allow three or four pounds of barley, feeding in the interval with ſtraw, but very little hay, which in thoſe countries is hard to be procured. CAMERARIUS, who really ſeems to have deſerved to ride a good horſe, from his liberal manner of feeding, directs ſix double pugils, or handfuls of oats, or barley, to be adminiſtered three times a day, the laſt, or night-feed, to be ſomewhat the largeſt. This may be eſtimated at about a peck and a half *per* day. His daily routine of diet is the following. At firſt going to ſtable in the morning, give a feed of corn, but no hay. At nine o'clock give him a lock of well-duſted hay,

which being eaten, water the horſe: leave a farther ſupply of hay, and return at twelve to give the noon-feed of corn. At three give more hay, and ſuffer him to drink again. At night offer him water previous to his laſt meal. VEGETIUS and BLUNDEVILLE adviſe to feed a horſe in ſmall portions at a time, particularly with the coarſe and rough garbage, which it is the cuſtom to give to cart horſes, leſt, by filling themſelves too ſuddenly and greedily, digeſtion be impeded, and ſurfeit enſue. Aſſuredly, we have little fault to find with the old writers in this important reſpect.

DIGGING A BADGER, is diſlodging or raiſing him out of the earth.

DIMNESS OF SIGHT, a diſorder in horſes, proceeding from blood-ſhotten eyes. If the ball of the eye be ſound, the cure is effected by keeping the horſe warm, with a hood of linen cloth fitted to his head, and anointing the eye-lids twice a day, with a compoſition of ſugar-candy, honey, and white roſe-water. In two or three days the eyes will be well again; after which, the creature ſhould be blooded. In this diſorder you ought by no means to clip or meddle with the bladders on any part of the eye.

DISARMING THE LIPS OF A HORSE, is the preventing them from taking off the true preſſure or *appui* of the mouth, when they happen to be ſo large as to cover the bars.

DISARM; to diſarm the lips of a horſe, is to keep them ſubject, and out from above the bars, when they are ſo large as to cover the bars, and prevent the true preſſure, or *appui* of the mouth, by bearing up the bitt, and ſo hindering the horſe from feeling the effects of it upon the bars.

Give your horſe a bitt with a cannon croup or cut, which will diſarm his lips; or elſe put the olives upon him, which will have the ſame effect.

To DISGORGE, is to diſcuſs, or diſperſe an inflammation or ſwelling. Hence they ſay,

Your horſe's legs are gorged, or ſwelled; you muſt walk him out to diſgorge them.

DISUNITE: a horſe is ſaid to diſunite, that drags his haunches, that gallops falſe, or upon an ill foot. *See* GALLOP FALSE.

DOCK, (or Trouſſequeve) is a large caſe of leather, as long as the dock of a horſe's tail, which ſerves as a cover to the tail of leaping horſes; and is made faſt by ſtraps to the crupper, having leather thongs that paſs between the thighs, and along the flanks to the ſaddle-ſtraps, in order to keep the tail tight, to hinder it from whiſking about, to make the horſe appear broader at the croup.

DOCK, (with Hunters) the fleſhy part of a boar's chine, between the middle and the buttock: alſo, the ſtump of a beaſt's tail.

DOCKING HORSES. *See* CURTAILING.

DOCK-PIECE OF A HORSE, ſhould be large and full, rather than too ſmall: if a horſe gall beneath the dock, greaſe the part every day, and waſh it with ſalt and water, or good brandy, but the latter is the moſt effectual remedy, if the horſe will endure it.

DOGS; a dog is a domeſtic animal, made uſe of for the guard of a houſe, and for hunting: the dog is the ſymbol of fidelity, and amongſt all irrational animals, may deſervedly claim a moſt particular preference, both for their love and ſervices to mankind; uſing humiliations and proſtrations, as the only means to pacify their angry maſters who beat them, and turn revenge after beating into a more fervent love.

The dog is the only animal whoſe fidelity is unſhaken; almoſt the only one who knows name, and anſwers to the domeſtic call; the only one that, when he miſſes his maſter, expreſſes his loſs by his complaints; and almoſt the only one who can readily find his way home, after he has been carried to a diſtant place. Theſe uſeful creatures guard our houſes, gardens, and cattle, with ſpirit and vigilance. By their help we are enabled to take not only beaſts, but birds; and to purſue game both over land and through the waters. The dog, of all animals, is the moſt ſuſceptible of change in its form; the varieties of this quadruped being too many for even the moſt careful deſcriber to mention; each will mix with the other, and conſequently varieties are produced ſtill more unlike the original ſtock. The climate, the food, and the education, continue to make ſtrong impreſſions upon this animal, and produce alterations in its ſhape, colour, hair, and ſize; and in every thing but its nature. The ſame dog carried from one climate to another ſeems to become a different animal; and different breeds appear to be as much ſeparated as any two animals the moſt diſtinct in nature. In ſhort, they are in every thing different, except the conformation of their internal parts, and that it is which diſtinguiſhes the ſpecies, and keeps them diſtinct from all others.

Dr. CAIUS, a phyſician in Queen ELIZABETH'S reign, has given the following ſyſtematical arrangement of Britiſh dogs.

I. The moſt generous kinds.
- Dogs of chaſe.
  - Hounds.
    - Terrier,
    - Harrier,
    - Bloodhound,
    - Gazehound,
    - Greyhound,
    - Leviner, or Lyemmer,
    - Tumbler,
- Lap. Fowlers.
  - Spaniel,
  - Setter,
  - Water-ſpaniel, or finder,
- Lap.
  - Spaniſh gentle, or comforter,

II. Farm dogs.
- Shepherd's-dog,
- Maſtiff, or ban-dog,

III. Mongrels.
- Wappe,
- Turnſp,
- Dancer.

For the penalty of ſtealing dogs, ſee GAME LAWS.

As there is no country in the world where there is not plenty of dogs, ſo no animals can boaſt of a greater variety, both in kind and ſhape; ſome being for buck, others for bear, bull, boar, and ſome for the hare, coney, and hedge-hog, while others are for other uſes, according to their various natures, properties, and kinds; neither are the uſes and kinds of them ſo general, but their bringing up is alſo as eaſy, there being no great regard to be had as to their food, for they will eat any thing but the fleſh of their own ſpecies, which cannot be ſo dreſſed by the art of man, but they will find it out by their ſmelling, and ſo avoid it.

Becauſe ſome authors ſeem to lay a ſtreſs upon the colour of dogs, we ſhall inſert in as ſhort a manner as poſſible what they ſay, and begin with the white coloured dogs; which for the moſt part are not good to run after all ſorts of beaſts, but are excellent for the ſtag, eſpecially if they be all over white; that is, pupped without any ſpot upon them: and experience has taught people to put a value upon ſuch dogs, by reaſon of the natural inſtinct they have to perform every thing well they are deſigned for before curious hunters, having admirable noſes, and very good at ſtratagems: in ſhort, theſe dogs are valued becauſe they are naturally leſs ſubject to diſeaſes than others, by reaſon of the predominancy of phlegm in them, which gives them a good temperament of body.

A black hound is not to be deſpiſed, eſpecially if marked with white, and not red ſpots; ſeeing this whiteneſs proceeds from a phlegmatic conſtitution, which hinders him from forgetting the leſſon he is taught, and makes him obedient; whereas dogs that have red ſpots, are for the moſt part very fiery, and hard to be managed, by reaſon of the bilious humour that prevails, and cauſes this irregularity within them: and therefore a black dog with white ſpots is valuable, being uſually hardy enough, will hunt well, is ſtrong and ſwift, and holds out a long time: he will not forſake the chaſe, and when you are beating the water for ſport, he will not be frightened at it: and laſtly, he is the more eſteemed, becauſe thoſe diſtempers incident to dogs, ſeldom befall him.

There are ſome grey coloured dogs that are good, and others you ought not to meddle with; that is, mongrels, which come from a hound-bitch that has been lined by a dog of another kind, or from a bitch of another kind that has been lined by a hound: hounds cannot be good if they do not entirely retain the nature that is peculiar to them; and when they do, grey dogs are to be coveted, becauſe they are cunning, never faulter, and grow not diſcouraged in the queſt. 'Tis true, their ſenſe of ſmelling is not ſo exquiſite as that of thoſe before mentioned, but they have other qualities which make amends for it; for they are indefatigable in hunting, being of a robuſter nature than others, and heat and cold, which they fear not, is alike to them.

Yellow dogs, are thoſe which have red hairs inclining to brown; and as choler is the moſt predominant humour in this animal, ſo he is found to be of a giddy nature, and impatient, when the beaſt he follows makes turns, ſeeing he ſtill runs forward to find him, which is a great fault; and therefore they are ſeldom made uſe of to hunt any other than the wolf, or ſuch black beaſts as are rarely inclined to turnings; they are too ſwift, open but very little, eſpecially in very hot weather; they are naturally impatient, and therefore hard to be taught, as they are uneaſy under correction. They are more ſubject to diſeaſes than other dogs, by reaſon of that over fierceneſs of temper, which makes them hunt beyond their ſtrength.

As to the proportions, ſizes, and features of dogs, Mr. LIGER ſays, the large, tall, and big hounds, called and known by the name of the deep-mouthed, or ſouthern-hound, are heavy and ſlow, and fit for wood-lands, and hilly countries; they are of deep mouth, and ſwift ſpenders: they are generally lighter behind than before, with thick ſhort legs, and are generally great of body and head, and are moſt proper for ſuch as delight to follow them on foot at ſtop-hunting, as ſome call it; but by moſt is termed hunting under the pole: that is, they are brought to that exactneſs of command, that in the hotteſt ſcent, and fulleſt chaſe, if one but ſtep before them, or hollow, or but hold up or throw before them the hunting pole, they will ſtop in an inſtant, and hunt in full cry after you, at your own pace, until you give them encouragement by word of command; which much adds to the length of the ſport, and pleaſure of the hunters, ſo that a courſe oftentimes laſteth five or ſix hours.

Oppoſite to the deep-mouthed, or ſouthern-hound, are the long and ſlender hounds, called the fleet, or northern-hounds; which are very ſwift, as not being of ſo heavy a body, nor having ſuch large ears: theſe will exerciſe your horſes, and try their ſtrength; they are proper for open, level, and champagne countries, where they may run in view, and full ſpeed; for they hunt more by the eye than by the noſe, and will run down a hare in an hour, and ſometimes ſooner: but the fox will exerciſe them longer and better.

Between theſe two extremes, there are a middle ſort of dogs, which partake of both their qualities as to ſtrength and ſwiftneſs, in a reaſonable proportion: they are generally bred by croſſing the ſtrains, and are excellent in ſuch countries as are mixed, viz. ſome mountains, ſome incloſures, ſome plains, and ſome woodlands; for they will go through thick and thin, neither need they be helped over hedges, as the huntſmen are often forced to do by others.

A true, right ſhaped, deep-mouthed hound, ſhould have a round, thick head, wide noſtrils, open and riſing upwards, his ears long and thin, hanging lower than his chops; the fleeces of his upper lip ſhould be longer than thoſe of his nether chops, the chine of his back great and thick, ſtraight and long, and rather bending out than inclining in: his thighs well truſſed, his haunches large, his fillets round and large, his tail or ſtern ſtrong ſet on, waxing taperwiſe towards the top, his hair under his belly rough and long, his ears large and lean, his feet dry and hard, with ſtrong claws and high knuckles: in the whole, he ought to be of ſo juſt a ſymmetry, that when he ſtands level, you may diſcern which is higheſt, his fore or hinder parts.

For

For the northern, or fleet-hound, his head and noſe ought to be ſlender and longer, his back broad, his belly gaunt, his joints long, and his ears thicker and ſhorter; in a word, he is in all parts ſlighter made, and framed after the mould of a grey-hound.

By croſſing thoſe breeds, as before obſerved, you may bring your kennel to ſuch a compoſition as you think fit, every man's fancy being to be preferred; and it is a well known ſaying,

So many men, ſo many minds;
So many hounds, ſo many kinds.

Though I ſhall refer the reader to the diſeaſes incident to dogs, under their reſpective heads; their being bitten or ſtung by ſome venomous creatures, and others not being eaſily reducible to an article by itſelf, it ſhall be added here: As when they are ſtung by ſome adder, or other inſect of that nature, you muſt take an handful of the herb of croſs-wort, gentian, and as much rue, the ſame quantity of *Spaniſh* pepper, thin broth, ends of broom and mint, of all an equal quantity; when that is done, take ſome white-wine, and make a decoction of the whole, letting it boil for an hour in a pot: then ſtrain the whole, into which put an ounce of diſſolved treacle, and let the dog ſwallow it, and obſerve how to waſh the bite therewith: if a dog is bitten by a fox, anoint it with oil wherein you have boiled ſome rue and worms.

To cure the Bites and Stings of venomous Creatures.

If dogs, *&c.* are bitten by any venomous creatures, as ſnakes, adders, *&c.* ſqueeze out the blood, and waſh the place with ſalt and urine; then lay a plaiſter to it, made of calamint pounded in a mortar with turpentine and yellow wax, till it come to a ſalve. If you give your dog ſome juice of calamint to drink in milk, it will be good; or an ounce of treacle diſſolved in ſome ſweet wine. *For more ſee* VENOMOUS BITES.

Rules to be obſerved for keeping Dogs in Health.

As pointers and ſpaniels, when good of their kind and well broken, are very valuable to a ſportſman, it is worth while to take ſome care to preſerve them in health. This very much depends on their diet and lodging; frequent cleaning their kennels, and giving them freſh ſtraw to lie on is very neceſſary; or in ſummer time, deal ſhavings inſtead of ſtraw, or ſand in hot weather will check the breeding of fleas. If you rub your dog with chalk, and bruſh and comb him once or twice a week, he will thrive much the better; the chalk will clear his ſkin from all greaſineſs, and he will be the leſs liable to be mangy. A dog is of a very hot nature: he ſhould therefore never be without clean water by him, that he may drink when he is thirſty. In regard to their food, carrion is by no means proper for them. It muſt hurt their ſenſe of ſmelling, on which the excellence of theſe dogs greatly depends. Barley meal, the droſs of wheat-flour, or both mixed together, with broth or ſkim'd milk, is very proper food. For change, a ſmall quantity of greaves from which the tallow is preſſed by the chandlers, mixed with their flour; or ſheep's feet well baked or boiled, are a very good diet, and when you indulge them with fleſh it ſhould always be boiled. In the ſeaſon of hunting your dogs, it is proper to feed them in the evening before, and give them nothing in the morning you take them out, except a little milk. If you ſtop for your own refreſhment in the day, you ſhould alſo refreſh your dogs with a little milk and bread. It has already been obſerved, that dogs are of a hot conſtitution; the greateſt relief to them in the ſummer is twitch graſs, or dog graſs, which is the ſame thing. You ſhould therefore plant ſome of it in a place you can turn them into every morning; they will feed freely on it, be cured of the ſickneſs they are ſubject to, and preſerved from any extraordinary heat of the blood: but unleſs the graſs be of this ſort, it is of no effect. If you be not acquainted with it, any gardener can furniſh you with enough to plant, as it is a nuiſance to them, and it's roots run ſo quick through the ground as to injure their crops.

On the Mange and its Cures.

Dogs are ſubject to the mange from being fed too high, and allowed no exerciſe, or an opportunity of refreſhing themſelves with dog graſs, or by being ſtarving at home; which will cauſe them to eat the vileſt ſtuff abroad, ſuch as carrion, or even human excrement: either of theſe will heat their blood to a degree, which will have a tendency to make them mangy. The cure may be effected by giving ſtone-brimſtone powdered fine, either in milk or mixed up with butter, and rubbing them well every day for a week with an ointment made of ſome of the brimſtone and pork lard, to which add a ſmall quantity of oil of turpentine.

Another medicine, Boil four ounces of quick-ſilver in two quarts of water to half the quantity, bathe him every day with this water, and let him have ſome of it to lick, 'till the cure be perfected. Or a ſmall quantity of troopers ointment rubbed on the parts on its firſt appearance will cure it. It will alſo free louſy puppies from their lice. Or euphorb album two ounces, flour of ſulphur, Flanders oil of bays, and ſoft ſoap, each four ounces. Anoint and rub your dog with it every other day: give him warm milk and no water. The cure will be performed in about a week. *See* MANGE.

On Poiſon of Dogs, and its Cure.

If you ſuſpect your dog to be poiſoned with nux vomica (the poiſon commonly made uſe of by warreners, which uſually cauſes convulſive fits and ſoon kills;) the moſt effectual remedy, if immediately applied, is to give him a good deal of common ſalt; to adminiſter which you may force open his mouth, and put a ſtick acroſs to prevent his ſhutting it, whilſt you cram his throat full of ſalt, at the ſame time holding his mouth upwards; and it will diſſolve ſo that a ſufficient quantity will be ſwallowed to purge and vomit him. When his ſtomach is ſufficiently cleared by a free paſſage obtained by ſtool, give him ſome warm broth frequently, to prevent his expiring from faintneſs; and he will recover.

cover. This ſucceſs I have experienced: I have alſo met with this preſcription: As ſoon as you ſuſpect your dog to be poiſoned, give him a common ſpoonful of the oil of *Engliſh* pitch, if a large dog, or in proportion if leſſer; which, 'tis ſaid, will carry off the malignity of the poiſon the ſame day. But of this medicine I have not had an opportunity of making trial.

To deſtroy Worms in Dogs.

Dogs are very frequently troubled with worms; but more particularly whilſt they are young: any thing bitter is ſo nauſeous to theſe worms, that they are very often voided by taking two or three purges of aloes, or (which is the ſame thing) *Scots* pills, four or five being a doſe for a large dog; this is to be repeated two or three times a week. If this does not ſucceed, you may give him an ounce of powder of tin mixed up with butter, in three doſes, which ſeldom fails to cure. Or of the herb ſavin dried and rubbed to powder, give about as much as will lay on a ſhilling for a doſe; which will entirely deſtroy worms and their ſeed.

On Madneſs of Dogs, and its Antidote.
See DOG-MADNESS.

To preſerve the Feet of your Dogs from Lameneſs.

A pointer ought not to be hunted oftener than two or three days in a week: and unleſs you take care of his feet and give him good lodging as well as proper food, he will not be able to perform that through the ſeaſon. You ſhould therefore, after a hard day's hunting, waſh his feet with warm water and ſalt, and when dry waſh them with warm broth, or beer and butter, which will heal the ſoreneſs, and prevent a ſettled ſtiffneſs from fixing.

For Strains, Blows, or ſmall Wounds in Dogs.

If your dog has received any little wounds by forcing through hedges, or gets any lameneſs from a blow or ſtrain; bathe the wound or grieved part with ſalt and cold vinegar (for warming it only evaporates the fine ſpirit) and when dry, if a wound, you may pour in it a little Fryar's Balſam, which will perform the cure ſooner than any method that I have experienced.

On Coughs, and Colds of Dogs.

Dogs are very ſubject to a cough, with very extraordinary choaking, which is often thought to ariſe from a cold or ſome inward diſorder; and I think it is often occaſioned by their eating of fiſh bones. To guard againſt it, order your ſervants to throw all ſuch fiſh bones where the dog can't get at them. But if the diſorder be from a cold, let bleeding be repeated in ſmall quantities, if neceſſary; but if it be what is called the diſtemper in dogs, and they appear very low in ſpirits, bleeding is better omitted. Let meat broth or milk broth warmed be the chief of his diet, and the following medicine: Take flour of ſulphur, cold drawn linſeed oil and ſalt-petre, of each one ounce; divide it into four doſes, giving him one doſe every other day; and let him have plenty of clean ſtraw to lie on. Or one ſpoonful of honey daily.

DOG-MADNESS. A diſtemper very common among all ſorts of dogs; there are no leſs than ſeven ſorts of madneſs, amongſt which ſome are eſteemed incurable; but before we proceed to particulars, it will be neceſſary to ſhew how it comes, and what are it's firſt ſymptoms.

The firſt cauſe proceeds from high feeding, want of exerciſe, fulneſs of blood and coſtiveneſs: as for the two firſt, you muſt obſerve when you hunt them, that they ſhould be better fed than when they reſt, and let them be neither too fat nor too lean, but of the two rather fatter than lean, by which means they will not only be preſerved from madneſs, but alſo from the mange and ſcab; which diſeaſes they will be ſubject to for want of air, water, or exerciſe: but if you have the knowledge to keep them in an even temper, they may live long and continue ſound; as for water, they ſhould be their own carvers; but for exerciſe and diet, it muſt be ordered according to diſcretion, obſerving a medium; and for the latter, give him once a week, eſpecially in the heat of the year, five or ſix ſpoonfuls of ſallad oil, which will cleanſe them: if at other times they have the quantity given them of a hazle-nut of mithridate, it is an excellent thing to prevent diſeaſe, and it is very good to bleed them under the tongue, and behind the ears. But if madneſs has ſeized them before you perceive it, they muſt be removed from the reſt, for fear of an infection, and go to work with the reſt.

The ſymptoms of this diſeaſe are many and eaſily diſcerned; when any dog ſeparates himſelf contrary to his former uſe, becomes melancholy or droops his head, forbears eating, and as he runs ſnatches at every thing; if he often looks upwards, and that his ſtern at his ſetting on be a little erect, and the reſt hanging down; if his eyes be red, his breath ſtrong, his voice hoarſe, and that he drivels and foams at the mouth; you may be aſſured he has this diſtemper.

The ſeven ſorts of madneſs are as follow; of which the two firſt are incurable, viz. the hot burning madneſs, and running madneſs; they are both very dangerous; for all things they bite and draw blood from will have the ſame diſtemper: they generally ſeize on all they meet with, but chiefly on dogs: their pain is ſo great it ſoon kills them. The five curable madneſſes are:

Sleeping madneſs, ſo called from the dog's great drowſineſs, and almoſt continual ſleeping; this is cauſed by the little worms that breed in the mouth of the ſtomach from corrupt humours, vapours, and fumes which aſcend to the head: for cure of which, take ſix ounces of the juice of wormwood, two ounces of the powder of hartſhorn burnt, and two drachms of agaric, mix all theſe together in a little white wine, and give it the dog to drink in a drenching horn.

Dumb madneſs lies alſo in the blood, and cauſes the dog not to feed, but to hold his mouth always wide open, frequently putting his feet to his mouth, as if he had a bone in his throat: to cure this, take the juice of

of black hellebore, the juice of *ſpatula patrida*, and of rue, of each four ounces; ſtrain them well, and put therein two drachms of unprepared ſcammony, and being mixed well together, put it down the dog's throat with a drenching horn, keeping his head up for ſome time, leſt he caſt it out again; then bleed him in the mouth, by cutting two or three veins in the gums.

It is ſaid, that about eight drachms of the juice of an herb called hartſhorn, or dog's tooth, being given to the dog, cures all ſorts of madneſs.

Lank madneſs, is ſo called by reaſon of the dog's leanneſs and pining away: for cure, give them a purge as before directed, and alſo bleed them: but ſome ſay there is no cure for it.

Rheumatic, or Slavering madneſs, occaſions the dog's head to ſwell, his eyes to look yellow, and he will be always ſlavering and drivelling at the mouth; to cure which take four ounces of the powder of the roots of pollibody of the oak, ſix ounces of the juice of fennel roots, with the like quantity of the roots of miſletoe, and four ounces of the juice of ivy: boil all theſe together in white wine, and give it to the dog as hot as he can take it, in a drenching horn.

Falling madneſs, is ſo termed, becauſe it lies in the dog's head, and makes him reel as he goes, and to fall down: for cure, take four ounces of the juice of briony, and the ſame quantity of the juice of peony, with four drachms of ſtaveſacre pulverized: mix theſe together and give it the dog in a drenching horn; alſo let him blood in the ears, and in the two veins that come down his ſhoulders; and indeed bleeding is neceſſary for all ſorts of madneſs in dogs.

To prevent dogs from being mad, that are bittten by mad dogs, is done by bathing them: in order to which take a barrel or bucking tub full of water, into which put about a buſhel and a half of ſoot, which muſt be ſtirred well, that it may be diſſolved; then put in the dog that is bitten, and plunge him over head and ears ſeven or eight times therein, and it will prevent his being mad; but he ſhould alſo be blooded.

When dogs happen to be bit as aforeſaid, there is nothing better than their licking the place with their own tongues, if they can reach it; if not, then let it be waſhed with butter and vinegar made lukewarm, and let it afterwards be anointed with *Venice* turpentine; it is alſo good to piſs often on the wound; but above all take the juice of the ſtalks of ſtrong tobacco boiled in water, and bathe the place therewith; alſo waſh him in ſea water, or water artificially made ſalt: give him likewiſe a little mithridate inwardly in two or three ſpoonfuls of ſack, and ſo keep him apart, and if you find him after ſome time ſtill to droop, the beſt way is to hang him.

It may not be amiſs to add what a late author adviſes one who keeps a dog, which is, to have him wormed, a thing of but little trouble and charge, and what he believes would prevent their being mad; and if they are, he is of opinion that it prevents their biting any other creature; for he aſſerts he had three dogs bit by mad dogs, at three ſeveral times; they were wormed, and though they died mad, yet they did not bite nor do miſchief to any thing he had: and having a mind to make a full experiment of it, he ſhut one of them up in a kennel, and put to him a dog he did not value: that the mad dog would often run at the other dog to bite him; but he found his tongue ſo much ſwelled in his mouth, that he could not make his teeth meet: that that dog, though he kept him with the mad dog till he died, yet did not ail any thing; he kept him two years afterwards, and gave him no remedies to prevent any harm which might come from the biting of the mad dog.

But as there are ſeveral ſorts of madneſs in dogs, he was not certain whether the effects were the ſame in all; but his dogs ſeemed to die of the black madneſs, which is reckoned the moſt dangerous, and therefore he could not tell how far the following receipt might be effectual in all ſorts of madneſs, though it had not failed in curing all the dogs that he gave it to which were bitten, and all thoſe he gave it not to died.

The remedy is this: Take white bellebore and grate it to powder, which muſt be mixed with butter, and given to the dog: the doſe muſt be proportioned to the ſize of the dog; to a very ſmall lap-dog you may give three grains, to a large maſtiff ſixteen grains, and ſo in proportion to other ſizes. He adds, that the beſt way is, to give him a ſmall quantity at firſt, that it may be increaſed as it is found to work, or not to work; but that as it is a ſtrong vomit, and will make the dogs ſick for a little time, ſo they muſt be kept warm that day it is given them, and the next night, and they muſt not have cold water; but when it has done working, towards the afternoon give them ſome warm broth, and the next morning give them the ſame before you let them out of the houſe or kennel.

The ſame author ſays, this is an extraordinary remedy for the mange; that he never knew three doſes fail of curing any dog that had it, except he had a ſurfeit with it; which if he had, let him blood alſo, and anoint him two or three times over with gunpowder and ſoap, beat up together, and it will cure him.

It is aſſerted by a gentleman that he has cured ſeveral creatures that have been bit by mad dogs, with only giving them the middle yellow bark of buckthorn, which muſt be boiled in ale for a horſe or a cow, and in milk for a dog; and that being bit by one himſelf, he ventured to take nothing elſe: but that it muſt be boiled till it is as bitter as you can take it.

The Choice of a DOG *and* BITCH *for breeding good* WHELPS.

The bitch ought to be one of a good kind, being ſtrong and well proportioned in all parts, having her ribs and flanks great and large.

Let the dog that lines her be of a good breed; and let him be young, if you intend to have light and hot hounds; for if the dog be old, the whelps will participate of his dull and heavy nature.

If your bitch does not grow proud of her own accord, ſo ſoon as you would have, you may make her ſo by giving her the following broth:

Boil

Boil two heads of garlic, half a caſtor's ſtone, the juice of creſſes, and about twelve *Spaniſh* flies, in a pipkin that holds a pint, together with ſome mutton, and make broth of it; and give of this to the bitch two or three times, and ſhe will not fail to grow proud, and the ſame pottage given to the dog will make him inclinable to copulation.

After your bitch has been lined and is with puppy, you muſt not let her hunt, for that will be the way to make her caſt her whelps: but let her walk up and down unconfined in the houſe and court; never locking her up in her kennel; for ſhe is then impatient of food, and therefore you muſt give her ſome hot broth once a day.

If you would ſpay your bitch, it muſt be done before ſhe has ever had a litter of whelps; and in ſpaying her take not away all the roots and ſtrings of the veins: for if you do it will much prejudice her reins, and hinder her ſwiftneſs ever after: but by leaving ſome behind, it will make her much the ſtronger and more hardy.

But by no means ſpay her while ſhe is proud, for that will endanger her life: but you may do it fifteen days after; but the beſt time of all is when the whelps are ſhaped within her. *For more ſee* POINTER, GREYHOUND, SPANIEL, *&c.*

DOG-DRAW (in the foreſt law) a term uſed when a man is found drawing after a deer by the ſcent of a hound, which he leads in his hand. *See* BACK-BERROND.

DOLE FISH. That fiſh which the fiſhermen, employed annually in the north ſeas, uſually receive for their allowance.

DORING } *See* CLAP-NET *and* LARK.
DARING }

DOTTEREL. A bird ſo named from it's doting fooliſhneſs, in imitating the actions of the fowlers, till it be catched in the net; of theſe birds there are many in *Lincolnſhire*.

To DOUBLE (Hunting term) uſed of a hare who is ſaid to double, when ſhe keeps in plain fields, and winds about to deceive the hounds.

DOUBLE VAULT. *See* VAULT.

DOUBLE, TO DOUBLE THE REINS: a horſe doubles his reins when he leaps ſeveral times together to throw his rider.

This Ramingue doubles his reins and makes pontlevis. *See* PONTLEVIS.

DOVE, RING. The beak of this bird is yellow, its feet naked and red, its legs feathered almoſt down to the feet. The head, back, and coverts of the wings, are of a bluiſh aſh-colour; the lower ſide of the neck and breaſt are of a purpliſh red, daſhed with aſh-colour. The upper part of its neck has a very regular and beautiful white circle, from which the bird has its name: and its whole neck, above and below this, is beautifully variegated with changes of colours, according as it is oppoſed to the light. The belly is of a dirty white, the greater quill-feathers are duſky, the reſt aſh-coloured; underneath the baſtard wing is a white ſtroke, pointing downwards. It is the largeſt pigeon we have, and may be diſtinguiſhed by its ſize. It hardly ever flies ſingle, but in large flocks, and builds on trees; its food is ivy berries, and other vegetable matter. They begin to cooe in *March*, when they pair, and leave off at the approach of the winter ſeaſon.

DOVE, TURTLE; this is a very beautiful little bird of the pigeon kind. The head, neck, and back, are of the bluiſh grey colour of the common pigeon, with a mixture of brown tinged with red at the bottom of the neck and near the rump. Its throat and breaſt are of a fine bright purple, its belly white, and the ſides of its neck are variegated with a ſort of ringlet of beautiful white feathers, with black baſes. The tail is about three inches and a half long, having the two middlemoſt feathers of a duſky brown, and the others are black tipped with white; and the end and exterior ſide of the outmoſt feathers wholly white. Its food is hempſeed and other vegetable matters. It is very ſhy, and chiefly breeds in thick woods.

DRABLING, IN ANGLING, is a method to catch barbels. Take a ſtrong line of ſix yards, which, before you faſten it to your rod, muſt be put through a piece of lead, that if the fiſh bite, it may ſlip to and fro, and that the water may ſometimes move it on the ground: bait it with a lob-worm well ſecured, and ſo by the motion the barbel will be enticed into the danger without ſuſpicion. The beſt places are in running water near piles, or under wooden bridges, ſupported with oaks floated and ſlimy.

DRAG (in Angling) is a piece of iron with four hooks placed back to back, to which a line is faſtened; uſeful to the angler, only to ſave an entangled line, or when it ſlips off his rod.

DRAUGHT HORSE. A horſe deſtined for the cart, plough, *&c.* in the choice of which for either of theſe purpoſes, being that which they call the ſlow draught, one is to be choſen of an ordinary height: for horſes in a cart, unequally ſorted, never draw at eaſe, but the tall hangs upon the low horſe. Our *Engliſh* authors ſay, he ſhould be big, large bodied and ſtrong limbed by nature, rather inclined to crave the whip, than to draw more than is needful; and for this purpoſe, mares are moſt profitable, if you have cheap keeping for them; for they will not only do the work but alſo bring yearly increaſe: but care muſt be taken to have them well forehanded, that is, to have a good head, neck, breaſt, and ſhoulders; but for the reſt it is not ſo regardful, only let her body be large; for the more room a young foal has in its dam's belly the better: and be ſure never to put the draught horſes to the ſaddle, for that alters their pace, and hurts them in their labour. *See* PACK-HORSE.

Some ſay, that a horſe deſigned for draught or labour, ought to have a head with large bones, and not fleſhy, that ſo he may not be ſubject to diſeaſed eyes; that his ears ought to be ſmall, ſtraight, and upright, and his noſtrils ſhould be large and open, that he may breathe with the more eaſe and freedom; that thoſe horſes that have their foreheads ſunk a little downwards about the eyes, are generally good for labour: whereas thoſe who are deſigned for the ſaddle, ought to have them even and pretty large; that the forehead

ſhould be always marked with a ſtar, unleſs the horſe be of a grey or white colour.

You muſt ſee that he has a bright and lively eye, full of fire, and pretty large and forward in his head, having large balls, and raiſed pits, and never ſunk, which ſhews that the horſe is old, or begot by an old ſtallion; and if he has a bold look it is alſo a good ſign: ſunk eyes or elevated brows are indeed ſigns of ſome malignity in a horſe; but theſe ſort of horſes will generally undergo much fatigue.

His mouth ſhould be pretty wide, being a quality very eſſential to it, the palate not fleſhy, and the lips thin: the mouth alſo ſhould be cool, and full of foam, by which you may diſcover the good temperament of a horſe, and that he is leſs ſubject to be heated than another; not that the mouth ſhould be that which muſt be moſt regarded in a draught horſe; for if he has a bad one he often draws well.

We do not require fine cheſts in draught-horſes, that not being eſſential; all that is to be ſaid on this occaſion is, that ſuch animals ought to have pretty thick and fleſhy ones, but his breaſt ſhould be large and open, his ſhoulders ſhould be thick, that he may draw the eaſier, and that his harneſs may not ſo ſoon hurt him: if he be ſomewhat heavy he is the better for draught; for the more he is nearer the ground, the more he is valued for that purpoſe. He ought to have double loins, which may be ſeen by their being a little raiſed up towards both ſides of the back-bone; he ought alſo to have large and round ſides, to the end that he may have the more guts, and a better flank: you need not be afraid of his having a great belly, provided it be not cow-bellied, which will make him appear deformed; he ſhould have full, but not broad flanks, that he may not ſway in the back at his labour.

That horſe is eſteemed which has a large and round buttock, that neither ſinks down or cuts: care ſhould be taken that he ſhould have a firm and ſtrong tail, that the dock ſhould be thick, well furniſhed with hair, and placed neither too high nor too low, both which contribute much to the deformity of the buttocks. The legs are parts of the body of a horſe which are moſt to be conſidered, as being thoſe which are to ſupport the burthen of the whole body, to which they ought to ſuit; therefore his legs ſhould be rather flat and broad than round, the roundneſs of the leg being a defect in a horſe deſtined to labour, which will ſoon ruin him; as for the hinder legs, the thighs ſhould be long and fleſhy, and the muſcle that is on the outſide of the thighs ſhould be fleſhy, large, and very thick: it is a fault to find them fall down plump when the horſe ſteps; it is alſo a ſign of weakneſs in the loins or hams: however you are not to conſider the hind legs ſo much as the others, they being not ſo ſubject to be faulty: the fore ones being very often bad when the others are good. Thoſe horſes whoſe legs are too long and too large for their height, are faulty, and you ought not to buy them. You muſt always obſerve that he ſtands well and plump, when he ſtops in any place, and if he does not, you may conclude he is not good.

The uſual way to know the age of a horſe, is by his teeth, eyes, *&c.* for which the Reader is referred to the article of AGE OF A HORSE, EYES OF A HORSE, *&c.*

The nether jaw of the horſe ſhould be examined very well, to ſee that it be incommoded with no gland, which may occaſion the ſtrangles, and be a means to kill him.

Something may be ſaid concerning the feeding of a draught-horſe; but for the ſervant who looks after him, he ought to be up very early, and ſee that the harneſs be in good order; and take away the old hay out of the rack, lay freſh in, and clean the manger, ridding it of all ordure, earth, or foul dung; and while the horſes are eating their hay, he ought to take them one after another out of the ſtable, to curry them; for if he ſhould do this work within, the duſt will fly to the other horſes.

If perſons would be perſuaded of the neceſſity there is to dreſs horſes well, they would not be ſo often ſurpriſed at the loſs of them, for want of this care, though they feed them ever ſo well.

It is from the filth that is upon and about them, that many of the diſtempers which befal them have their riſe, and prove their deſtruction: and it may be held for an invariable maxim, that a horſe with leſs food, methodically diſpenſed, and well dreſſed and curried, ſhall be fatter, and more ſightly, than another who has more provender given him, and whoſe dreſſing is neglected; and therefore the maſter of a family ought to be on the watch, and ſee that his ſervants (if they are of themſelves careleſs) be not wanting in this particular.

Such ſort of ſervants ought to be good humoured, handy, tractable, nervous, and hardy; and in order to dreſs a horſe well, they ſhould hold the curry-comb in the right hand, and the horſe in the left, near the buttock, and lightly move the comb backwards and forwards along his body, and continue ſo to do till no more filth or duſt come off; and then they muſt, with a duſt-cloth, wipe off all the duſt that lies on the horſe, taking care to do it over his body.

They ſhould daily, after they have duſted their horſes, take a whiſp of ſtraw, and twiſting the ſame hard, wet it in water, with which they ſhould rub them all over, more eſpecially the legs: by this means they will remove obſtructions, and facilitate the paſſage of the animal ſpirits, which cauſe motion: indeed it cannot be expected this ſecond dreſſing ſhould be practiſed every day, but it ought to be done as often as ſervants have any leiſure for it, particularly when the weather does not permit them to labour abroad; and if they are defective therein, the maſter of the family ought to be careful, and make them do it. When the horſes are thus dreſſed, the next thing is to take the comb, and gently to comb their manes and tails; and then they are to be led out of the ſtable to water, and to chear and divert them as much as poſſible.

Moſt part of the diſeaſes to which horſes are ſubject, proceed from their drinking bad waters; ſuch as thoſe that are too vivid, or too raw, muddy, and too cold.

To

To prevent theſe inconveniences, you muſt obſerve, that if you are near a river, you ſhould in ſummer-time, by all means lead your horſes thither; but as little as may be in the winter, if you have a well near home; for well-water freſh drawn, during the ſeaſon, is warm, and conſequently good for the horſes: If you are remote from any river, and that in ſummer-time you have no other than ſpring water to give your horſes to drink, you muſt draw the ſame a good while before it is given them, and expoſe it to the ſun in tubs, or very clear ſtone troughs, that you may by that means correct the great crudity of the water, which is extremely injurious to them: you muſt ſeldom or never carry them to drink marſhy water, which has very bad qualities, and will not agree with them.

When your labouring horſes have drank their water, you muſt give them their oats in a manger, that has been firſt of all cleaned: the oats ſhould be well ſifted and cleared from duſt, before you give 'em to them; you ought to take care to ſmell to them, and ſee if they ſmell of rats, or are muſty, which will make the horſes loath them. You muſt likewiſe, above all things, obſerve whether there are any ſmall feathers among the oats, which may, if left therein, do the horſe a great deal of injury: the quantity of oats allowed to each horſe is ſometimes more and ſometimes leſs, but ever enough to keep up their fleſh; and while the horſes are eating their oats, the ſervants are to take their breakfaſts, and afterwards to go to harneſs them for the plough or cart, as their occaſion requires.

But before they do this, they muſt examine whether any thing hurts them, either at the breaſt, ſhoulders, or hams; and they muſt ſee that the collars about their necks be ſupplied with every thing that is requiſite for them: if they are to draw in a cart, you muſt ſee that the pad upon the back does no way hurt them, that the ſame ſits every way even, and that it be well ſtuffed with hair in the pannels, for fear it ſhould be too hard upon the horſe's back.

The horſe being thus managed, and every thing in good order for the work, whether with plough or cart, thoſe ſervants who do underſtand their buſineſs well, do not work them at firſt too hard, but every turn let them gently breathe; whereas if they do otherwiſe, they will very often find them decline their food, after their return from labour; by which ill management they ſometimes run the danger of foundering, or having their greaſe melted; and therefore to work them gradually is the beſt and ſafeſt way. When the horſes are returned from the plough, *&c.* as towards noon-tide, or the like, they are uſually all in a ſweat, and then the men muſt not fail to rub them with a whiſp of ſtraw; this is the firſt thing they are to do after they are brought into the ſtable; then let them prepare ſome bran which is very well moiſtened, which put before them in the manger, to make them mumble the ſame, and this will make them eat the hay with greater appetite; the bran being ordered as before, will cool their mouths, which are dried, through the heat occaſioned within by their drawing; and notwithſtanding the horſes are thus hot, it is very rarely that any inconvenience happens to them, eſpecially if the water wherein the bran has been ſteeped, be uſed rather hot than cold: when ſuch precautions are not taken, it is no wonder the owner and their ſervants, very often find their horſes loath their food, the dryneſs of their tongues rendering all the food inſipid to them; and therefore thoſe perſons who love their horſes, ought carefully to obſerve this method, and they will find their account in it.

We daily ſee perſons who pretend to be well ſkilled in the management of horſes, as ſoon after hard labour as they are brought back to the ſtable, never fail to rub their legs with whiſps of ſtraw, alledging that this is the way to refreſh and ſupply them, and conſequently to cheriſh them very much: but they are much miſtaken in the point, for the horſes after hard labour, muſt not have their humours much agitated; and by this action they muſt needs fall upon their legs, which will tend to make them very ſtiff and uſeleſs. The author adds, that he was willing to give them this information and caution, judging it very neceſſary for the avoiding thoſe inconveniences which happen daily by that ill method, which cannot be followed after ſuch admonition, but by thoſe who are obſtinate in their way, and will ruin their horſes: not that our author diſapproves the rubbing of their legs, which he ſays is very wholeſome; but it muſt not be done when they are too hot; and they ſhould confine themſelves only to the rubbing of their bodies when they are in a ſweat, and let their legs alone.

Their racks being well ſupplied with hay, you muſt ſuffer your horſes to reſt two hours, or thereabouts, then lead to the water, to a river, if near, or otherwiſe as above directed; and then in a little time after they have eaten their oats, to work again with them: in the evening, when your plowing or other work is over, the firſt thing to be done after they are tied to the rack, is to lift up their feet, and ſee if there is any defect in the ſhoes, and at the ſame time take out with a knife, the earth and gravel which is lodged in the foot between the ſhoe, and the ſole, and put in ſome cow-dung: this your ſervants often neglect, and therefore the maſter ought to ſee them do it.

A thing very eſſential for the preſervation of all ſorts of horſes, is good litter, which to theſe animals is comparatively the ſame as clean ſheets to men. There are many who ſuffer the dung to rot a great while under their horſes; ſome through lazineſs will not clean their ſtables, and others ſay they leave the dung there that it may receive more juice, and be the better manure for the ground; but it is very wrong reaſoning, to ſay we do this to ſave five ſhillings, and loſe ten: but you are to underſtand, that the dung being heaped up for a conſiderable time, does ſo overheat the horſe's feet, that this alone is enough to ruin them entirely.

Hence alſo ariſe ſo many inconveniences to the owners of them, that they are often obliged to keep them in the ſtable without doing any work, which embarraſſes either the maſter to whom they belong, or the ſervant who has the care to dreſs them; and this inconvenience proceeds only from their ignorance of the cauſe: and therefore it is of the higheſt importance

that the ſtable ſhould be cleanſed as often as poſſible, and the horſes have freſh litter given them; beſides, it is natural to believe, that all animals hate their own ordure; and it is abſurd to think, that a horſe, which is one of the cleaneſt among them, ſhould not do the ſame.

Freſh litter has a virtue to make horſes ſtale as ſoon as they come into the ſtable, whereas when they find no ſuch thing therein, they decline ſtaling; and if people were ſenſible what refreſhment it is to a horſe to ſtale at his return from labour, they would be both more curious and careful to let him have that which would promote it than they are.

This ſtaling after much fatigue, will prevent obſtructions in the neck of the bladder, or paſſage of the urine: but if otherwiſe, and that this ſame urine comes to lodge in the bladder, it will cauſe ſome inflammations there; which are very dangerous evils for horſes, and of which they very often die, without preſent relief: hence you may judge of the neceſſity there is to let your horſes frequently have freſh litter.

As to the remaining care you ought to have of your horſes, ſo that they may paſs the night as they ought, there needs no more after you have well rubbed them, than to ſupply their racks with hay enough, which they may feed upon after they have eaten their oats: and continuing thus daily to manage them, it will be the means to keep them in a condition to do you good ſervice. If you would ſee more about buying other ſorts of horſes, *ſee* RULES FOR BUYING HORSES.

DRAW-GEAR, denotes a kind of harneſs for draught-horſes.

DRAW-NET. A device wherewith to catch birds, and eſpecially woodcocks; the figure of which will be found under that article; to which ſomething to be ſaid here does refer. There are two ways, ſays a *French* author, to defend the cords or lines of your draw-net from your hands, and to keep you from cold. Suppoſe the crotchet or hook R, in the ſaid figure, Number 2, ſhould be denoted here by the figure 1; the ends of the two cords 2 and 3, and the two lines 5 and 6, were the cords to keep the net extended; when you ſit in your lodge, hold the place marked 7, very firm in one hand, and with the other paſs the two redoubled cords together, to the figure 4, between your legs, and bring them over your thigh; then keep them tight enough, quit the places, and ſo with either of your hands you will hold the cords without trouble; but you muſt be very ready in opening them, and ſeparate your knees when the woodcock gets into the net. *See* Plate V. No. 1.

Another way of holding the net without feeling any cold, or hurting your hands, is ſeen in the figure, No. 2.

Suppoſe the ſeat in the lodge be towards the letter R, drive the ſtick H into the ground; it muſt be about two inches thick, and the breadth of four fingers above ground: at a foot and a half from this little ſtake, as you go towards the draw-net, at the places marked K and M, drive two other ſticks into the ground, and they muſt not exceed a foot above ground; a hole ſhould be bored in them within two inches of the upper end, into which you may thruſt a finger: take a turned piece of wood, N, C, O, whoſe ends N, O, muſt be no thicker than one's little finger, that they may the more eaſily turn into the two holes I and L, into which you muſt thruſt them: you muſt make a hole in the middle of the ſaid round piece of wood, big enough to receive a peg as thick as your finger, and five or ſix inches long. This piece of wood ought to be fixed in the holes before you drive the two ſtakes into the ground.

Beſides this, take another piece of wood, H, G, F, let it be flat like a piece of pipe-ſtave, and cut at both ends in the form of a half-moon, that ſo being joined to the ſtake H, it may hold. The machine being thus made, when you have ſpread and mounted your net, ſuppoſe the two lines A, B, were its cords, raiſe them both with the ſame hand, and doubling them with the other at the letter C, give them a turn about the end C, of the peg in the middle; then puſhing the other end E, on the ſide of the net, give the turned ſtick, or round piece of wood, N, O, two turns, and faſten it, by putting ſome of the ends of the marcher H, againſt the ſtick H, and the other at F, againſt the end of the peg E, ſo that the weight of the draw-net, by this marcher or trap, will ſtop the turned ſtick, and hinder its turning. You may by this device keep your hands in your pockets, without being afraid of the net's falling; but keep the end of your foot always upon the middle part G, and when the bird comes to your draw-net, ſtir your foot, and the net will as readily fall as if you held it with your hands.

This triple draw-net ſerves chiefly for paſſes made about foreſts; they are very convenient, becauſe one man can pitch ſeveral of them, without being obliged to watch the coming of woodcocks. *See the form of this net in* Plate V. Fig. 3.

In order to the making this net, you muſt take meaſure of the breadth and height of the place where you are to uſe it, and faſten it to a nail, in order to meaſure off the ſquare meſhes; as you will find under the Article NET, and NET-MAKING, where we treat of making a net that will ſhut like a bag, which muſt conſiſt of good thick thread, twiſted four-fold, and the meſhes muſt be ten or a dozen inches broad.

It is difficult, in great foreſts, and woods that are equally ſtrong and tall, to make glades, without felling a great many trees; and yet you are not ſure your draw-net will do, without you meet with a place of ten or a dozen arpents or more, each of which conſiſts of an hundred perches ſquare, without any trees, and that the glade adjoins to it.

In caſe you can have no ſuch, you may try the following invention, deſcribed in Plate V. Fig. 4.

Pitch upon ſome clear place on the ſide of a foreſt; for example, ſuppoſe A D to be the foreſt, and the ſpace between the tree A and the letter E, to be the void ſpace, five or ſix fathoms broad; pitch upon a tall and ſtraight tree on the ſide of the wood, as that marked A, lop off the branches towards your clear ground, and faſten to the top of the tree a ſtrong pole, as K, R, Z; find out a tree in the wood of a middling bigneſs, as that repreſented by E, F, let it be as high and ſtraight as poſſible: when you have taken off all the branches,

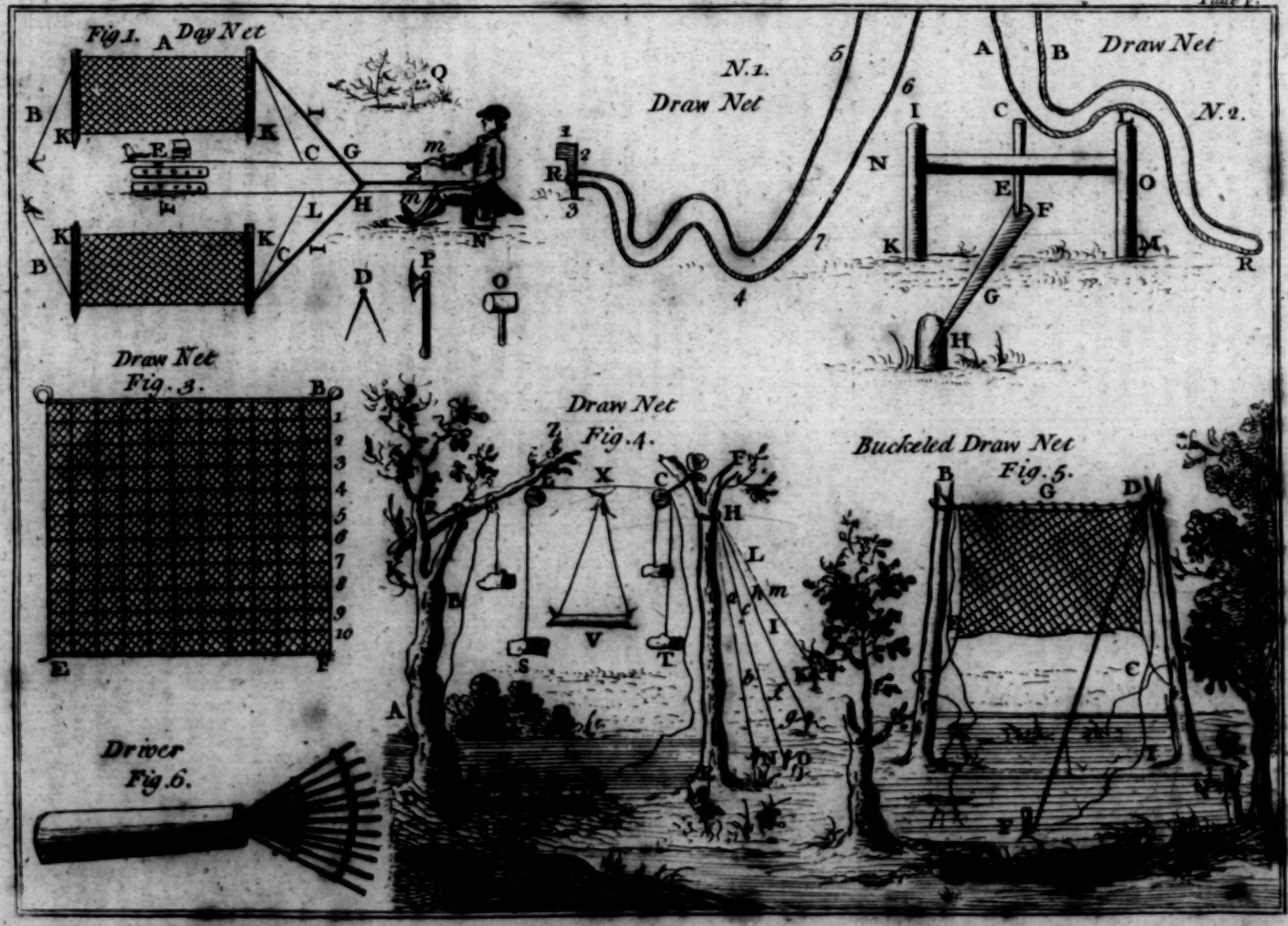
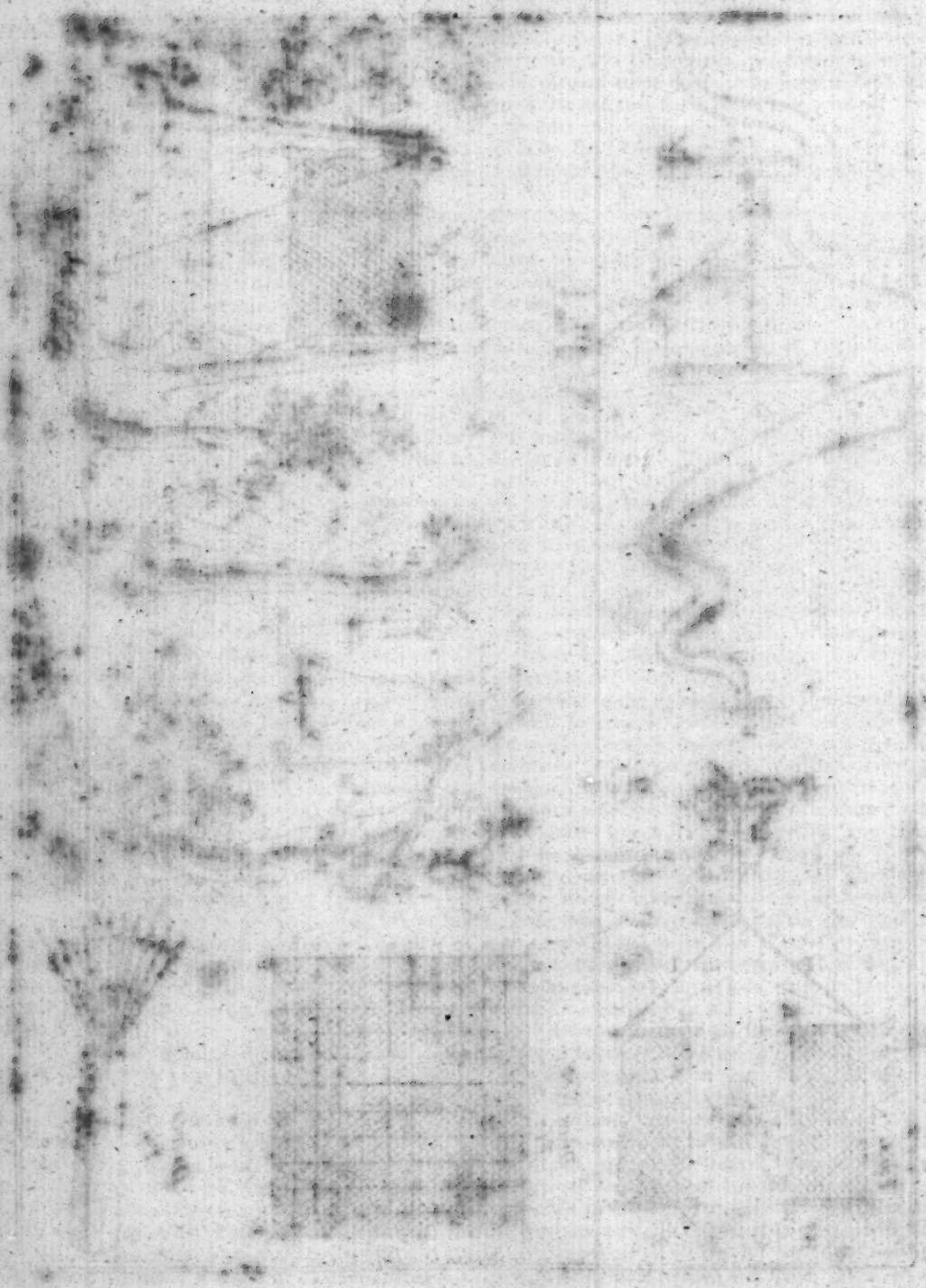


Fig. 1. Day Net
N. 1. Draw Net
Draw Net
N. 2.
Draw Net
Fig. 3.
Draw Net
Fig. 4.
Buckeled Draw Net
Fig. 5.
Driver
Fig. 6.



branches, carry it to the place where your draw-net is, and making a hole in the ground, as at E, four or five feet deep, and ſix or ſeven fathom diſtant from the edge of the foreſt A, put the thick end of it into this hole, liſt it up, and let it ſtand upright, after you have firſt tied within two or three feet of the end F, ſome bands of wood, faſtened end to end to one another, as you may ſee by the letters *a*, *b*, *c*, *d*, *e*, *f*, &c. and then let them be kept tight, with wooden hooks fixed quite round in the ground: they ſhould be nine feet diſtant from the foot E, and ordered like ropes at the maſt of a ſhip: at the ſame time care muſt be taken that none of them reach to the glade, or ſpace between A and E, for fear of entangling the net. You muſt ſo ſet your tree which you have cut, that the point F incline two feet, or thereabouts, towards the paſs to the foreſt; and you are to faſten the pully C to the ſmall end, with a cord or packthread thruſt through it; as alſo to the tree A, and through the pully L. You may leave the thick cords there; but becauſe thieves might be tempted to ſteal them, the beſt way is to leave only the packthreads, and even to ſhorten them, by tying a ſmall packthread B to one end, and twiſting the other about the trunk of the tree, at a place where they are not to be come at, eſpecially with climbing up as far as the part H of the cut tree: but the beſt way is to take with you a light ladder, ſix or eight feet high, by which you may more eaſily ſecure your goods.

Another invention is, after the flight is over, to tack two cords together, by the means of which you may convey up as many ſtones as far as the pullies; then take a ſtick V, two feet long, and cleft at both ends, about which fold all the reſt of the cords; after which paſs them both into the clefts at the ends of the ſtick, and let the whole mount up. Thus the ſtones S, T, will come down to half the height of the trees, becauſe the cords are tied together at the letter X, and there will the ſtick V hang downwards: ſo that to order things rightly, you muſt have a long pole with a hook at the end, wherewith to hook the piece of wood V, and pull it; or elſe take a packthread, and tie a ſtone as big as a hen's egg to it, that you may throw it between the two cords over the ſtick V, and by that means to pull it as with a hook. It remains only to obſerve, that you may place ſeveral draw-nets round about the foreſt, and even one man can pitch ten or a dozen of the triple ones.

This article might be thought to remain imperfect, without ſomething ſhould be ſaid relating to the flying, or buckled draw-net, by ſome called pantine; which is of uſe in all places, and eſpecially in countries where it is nothing but coppices and foreſts, whoſe owners will not allow the felling any trees, or cutting of branches, neceſſary for the uſe of the former net. *See* Plate V. Fig. 5.

Take two poles, as E, B, D, C, as thick as your arms, of twenty-one feet long; they muſt be ſtraight and light, and pointed at the thick end: faſten to each ſmall end B, D, an iron, copper, or ſuch like buckle, to ſerve inſtead of a pully: you muſt alſo have a draw-net with buckles, into which you muſt paſs a ſtrong packthread, that is even, and twelve fathoms long: this packthread is denoted by the letters B, G, D, F; you muſt fold it, that it may not be entangled with the net: you muſt in like manner have a wooden hook F, of a foot long, for the convenience of carrying your implements, to uſe as you have occaſion.

It is to be obſerved, that this draw-net muſt be pitched no where but on the ſides of a coppice, near ſome vineyard, in the highways or walks in a foreſt or park; eſpecially when theſe places adjoin to fields, or open grounds, in the middle or between woods. You may likewiſe ſpread this net along a brook, at the bottom of a pond, and indeed, in a manner, in all places frequented by woodcocks. You muſt uſe it in the following manner:

Suppoſe the tree L, ſhould be the ſide of the wood, or ſome other place where you have a mind to pitch your net, you muſt unfold it, and take an end of the thick packthread which paſſes through the buckle, and tie it to the end of the pole at the letter B; paſs a ſmall packthread E, K, into the buckle which is at the end B, and tie it to the firſt buckle B of the net, that you may draw it like a bed-curtain; then ſtick the pole B, E, quite round the wood L, in ſuch a manner, that it may ſtand firm in the ground, and ſlope a little towards the tree. Take the other end of the thick packthread F, and paſs it alſo into the buckle or ring D, which you are likewiſe to pitch into the ground, about five or ſix fathom diſtant from the wood, or other pole B, E: then withdraw ſeven or eight fathoms diſtant from the net, to the foot of ſome tree or buſh, or elſe to ſome branch which you have pitched on purpoſe, over againſt the net, as at the place marked F; here you muſt fix the hook, and tie the end of the thick packthread, and then pull the whole till the net is mounted; you muſt next twiſt the cord twice or thrice about the hook, to the end that you may keep it tight, while you go to pull the ſmall packthread E, in order to extend the net; when this is done return to the hook, unfold the cord, and ſit near the buſh or cover, without ſtirring, having your eye always to the net, that you may let it fall when the woodcock gets into it, which you muſt kill as ſoon as taken; and ſetting your net readily again, do as before. It would not be amiſs to put a ſmall packthread into the laſt buckle D of the net, as on the other ſide, by which you will readily adjuſt the draw-net.

Theſe ſort of draw-nets ſhould have no other than lozenge meſhes, becauſe they muſt glide along the cords, like a bed-curtain; the net ſhould not be above five or ſix fathom wide, and two and a half or three in height. The meſhes ſhould be two inches broad, or two and a half or three at moſt; the net ſhould be made of fine but ſtrong thread, and the copper buckles faſtened to all the meſhes of the laſt upper row B, D; the leaver muſt be made twice as long as you would have the net to be in extent; then having a quarter more than the meaſure of the height you muſt accommodate the buckles, which being adjuſted in the manner wherein they ought to ſtand, paſs a middling cord, or elſe a packthread as thick as a writing-pen, into all theſe buckles.

You ſhould have two other ſmall packthreads B, G, D, C,

D, C, which you muſt paſs into the laſt range of the meſhes of both ſides, one of which muſt be faſtened to the buckle B, and the other to that at D; in order to keep the net right when you make uſe of it; and therefore the two ends E and G muſt be looſe, and longer than the height of the net by ten or twelve feet: this net muſt be of a brown colour.

The draw-nets are uſually made with lozenge meſhes, becauſe there are few perſons who know how to make them otherwiſe, but others adviſe to make them as much as you can of ſquare meſhes; for when they are thus wrought and pitched in the paſſes, they are ſcarce to be ſeen, and when entangled will contract the nets too much in ſome places, and darken the place, which frightens the woodcock, and will either make him go back or paſs it over.

You are to obſerve concerning draw-nets with lozenge meſhes, that more thread and labour is required, than for thoſe with four-ſquare ones, which are made ſooner, and have no ſuperfluous meſhes. However, every one is at liberty in their choice either of one or the other.

If you would have a draw-net with lozenge meſhes, meaſure the breadth of the place where you are to ſpread it, make the net near twice as long as that meaſure. It's height ſhould be from that branch where the pulley is, to within two feet of the ground; and that you may comprehend it the better, conſult the firſt figure under the article WOODCOCK. The breadth is from the letter V to the letter X; being the places where the ſtones ſhould fall, which are ſuppoſed to be faſtened at M and N; when the net is ſpread, the height ſhould be taken from the pulley to come down near to the letter X; the net muſt therefore be made one third part longer than the height; for being extended in breadth, it will ſhorten one-third; when the whole net is meſhed, you muſt have a cord that is not quite ſo thick as your little finger, through all the meſhes of the laſt range M, N; you muſt faſten both ſides, tying the ſix firſt meſhes of the row together to the cords ſo that they may ſlip along; do the ſame by the other ſide: theſe two places muſt be diſtanced, according to the width of the paſs, leaving the reſt of the meſhes of the net above looſe, ſo as to ſlip or be drawn from one ſide to the other, like a bed-curtain: then to each of theſe cords tie a packthread, which you muſt paſs into the laſt range of meſhes on the ſides, that ſo you may faſten the net as it ſhould be, to two trees, A, B; a foot or two of the cord ſhould be ſuffered to hang down at each end of the net, wherewith to tie the ſtones, when you would ſpread the net.

If you would have a draw-net with ſquare meſhes, take the breadth and height, and work as aforeſaid: when the net is finiſhed, verge it above with a pretty ſtrong cord, and paſs two packthreads through the meſhes, on both ſides, in the ſame manner as in that made lozenge-wiſe, and leave alſo both ends of the cord, ſo that the ſtones may be tied therewith.

DRAWING (with Hunters) is beating the buſhes after a fox; drawing amiſs, is a term uſed when the hounds or beagles hit the ſcent of their chaſe contrary, ſo as to hit up the wind, whereas they ſhould have done it down; in that caſe it is ſaid, they draw amiſs.

DRAWING ON THE SLOT, is when the hounds touch the ſcent and draw on till they hit on the ſame ſcent.

DRAWING A CAST, (among Bowlers) is winning the end, without ſtirring the bowl, or block.

DRAY. The form for ſquirrels neſts built on the tops of trees.

DRENCH: is a ſort of decoction prepared for a ſick horſe, and compoſed of ſeveral drugs mentioned in Mr. SOLLYSEIL's *Complete Horſeman*.

They put the drench upon the end of a bull's pizzle, and thruſt it down his throat, in order to recover his appetite and ſtrength.

DRIFT OF THE FOREST, is an exact view and examination taken at certain times, as occaſion ſhall ſerve, to know what beaſts are there; that none common there, but ſuch as have right; and that the foreſt be not overcharged with foreigners beaſts or cattle.

DRINKING OF HORSES, immediately after hard riding, *&c.* is very dangerous; and therefore they ſhould not be ſuffered to do it, till they be thoroughly cooled, and have eat ſome oats; for many by drinking too ſoon have died upon it, or become ſick.

A horſe after violent labour, will never be the worſe by being kept half a day from water; but may die by drinking an hour too ſoon.

DRIVERS. A machine for driving pheaſant powts, conſiſting of good ſtrong ozier wands, ſuch as baſket-makers uſe; theſe are to be ſet in a handle and twiſted, or bound with ſmall oziers in two or three places. *See* Plate V. Fig. 6.

DRIVING OF PHEASANT-POWTS; for the driving and taking of powts or young pheaſants in nets; when you have found out an eye of pheaſants, place your net acroſs the little paths or ways they have made, which are much like ſheep tracks, poſſibly you ſhall find out one of their principal haunts, which may be done by the bareneſs of the ground, their mutings and the feathers that lie ſcattered about.

To do this you ſhould always take the wind with you, it being cuſtomary for them to run down the wind; and place your nets hollow, looſe and circularly, the nether part of which muſt be faſtened to the ground, and the upper ſide lying hollow, looſe and bending, ſo that when any birdsruſh in, it may fall and entangle them.

Having fixed your net go to the haunts, and if you find them ſcattered, call them together with your call: and when you find them begin to cluck and pipe one to another, then forbear calling, and take an inſtrument, by ſome called a driver, made of good ſtrong white wands or oziers, ſuch as are uſed by baſket-makers, which is to be ſet in a handle, and in two or three places twiſted or bound with ſome oziers, according to the figure, ſee Plate V. With this driver, as ſoon as you perceive the pheaſants gathered together, make a gentle noiſe on the boughs and buſhes about you, which will ſo fright them that they will get cloſe together, and run away a little diſtance, and then ſtand; after this

this make the ſame noiſe a ſecond time, and this will ſet them a running again; taking the ſame courſe till you have driven them into your nets; for they may be driven like ſo many ſheep.

If they happen to take a contrary way; then make a raking noiſe, as if it were in their faces; and this noiſe will preſently turn them the right way.

But in uſing the driver obſerve,

1. Secrecy, in keeping yourſelf from their ſight; for if they eſpy you they will run and hide themſelves in holes under ſhrubs, and will not ſtir till night.

2. You muſt have regard to due time and leiſure, for raſhneſs and over haſte ſpoil the ſport.

DRIVING OF WILD FOWL, is only practicable in the moulting time, which is in *July* and *Auguſt*; and it is to be done by means of a ſpaniel, well trained to the purpoſe. The nets are to be ſet in creeks and narrow places, or at their uſual night retreats, and the dog is to put them up, and driving them forward, they will be ſent immediately into the nets, not being able to fly away from the dog, for the want of their wing feathers. The people who live in the fens find great account in this practice, taking very great numbers by it. They are uſually indeed poor and out of fleſh at this time, but as they are always taken alive, and without any hurt, the people find it very eaſy to fatten them with beaſts livers, barley, paſte, ſcalded bran, and the like; and they will on this become, in a very little time, fat and well taſted, excelling in flavour both the tame ducks commonly kept in the yards, and the wild ducks in their natural ſtate. When the ſportſman takes the dog into places where they are not ſo frequent, he may hunt them ſingly, and the dog alone will take them.

DROMEUS, a word uſed by the ancients, as the name of the ſtag. The meaning of the word is 'ſwift in running;' and the ſtag had this name as being ſwifter than any other animal.

DROPPING, or DRIPPING, a term uſed among *falconers*, when a hawk mutes directly downwards, in ſeveral drops, not throwing out her dung ſtraight forwards.

DROPSY, IN GOATS; this diſorder occurs but ſeldom, yet is very troubleſome whenever it happens, by their feeding and lying in bogs, wet valleys, or mooriſh grounds.

When this appears by water between the ſkin and fleſh, ſqueeze it up with your hand, and make a ſlit, ſo preſs out as much as you can; then put a linen tent in the hole, dipt in oil of bays or ſpike, which you can moſt conveniently get, and ſo renew it every other day, that it may attract and evacuate the water and humour; then dry the leaves of draw of elder powder, and give it in vinegar warm. Let the goat in the mean while feed on dry meat, but very little water, and that warm.

DROPSY, IN HORSES; the ſigns of this diſorder, according to Dr. BOERHAAVE, are a looſe ſoft tumour of the whole body, really cold and watery, in the legs eſpecially, a deſire of drinking, the urine thin and white, &c.

It proceeds from a kind of weakneſs in the blood, and the ways to cure it, or rather the ſigns of cure, are only two, viz. a diſcharge of the water, and recovery of the ſtrength of the blood. Give the following Hellebore Infuſion:—

Take of black hellebore freſh gathered two pounds; waſh, bruiſe, and boil it in ſix quarts of ſpring or new river water, till it is reduced to four quarts; then ſtrain out the liquor, and put two quarts of white wine to the remaining hellebore, and let it infuſe warm in a pitcher, or the like, for forty-eight hours, often ſhaking the liquor about, then ſtrain out the wine, and mix both the water and it together, which may be kept in a ſtone bottle, and a pint of it milk-warm given every morning and evening.

Many horſes have been tapped for the dropſy with great ſucceſs, for the ſituation in which a horſe ſtands very much favours the diſtillation of the water through the orifice; but, if this method is not approved, I would adviſe the following purge:—

Take one ounce of aloes, one drachm of gamboge, two drachms of powdered ſaffron, cloves and nutmegs each one drachm, oil of anniſeed ſixty drops, with a ſufficient quantity of buckthorn to make it into a ball.

Whilſt your horſe is under hand for cure, you ſhould obſerve that his food is of the beſt and moſt nouriſhing kind, and that he drinks as ſparingly as poſſible.

As the horſe advances towards recovery, you may give him this ſtrengthening drink:—

Take gentian root and zedoary, of each four ounces; chamomile flowers and the tops of centaury, of each two handfuls; jeſuit's bark, powdered, two ounces; juniper berries, four ounces; filings of iron, half a pound: infuſe theſe in two gallons of ale for a week, now and then ſhaking the veſſel; give him a pint every morning and night, and let him faſt two hours after it.

Others adopt this method of cure:—

Take two handfuls of parſley ſeeds, the like of anniſeeds and bay-berries, with one handful of juniper-berries; bruiſe them together in a mortar, and boiling them in verjuice, ſweetened with brown ſugar, give the horſe the quantity of a pint to drink, firſt and laſt chafing the ſwelled or tumorous places with your hand, or a hard wiſp of hay; and ſo continuing them for a week together, you will find the fleſh become firm, and the watery humours diſperſe.

DROUGHT, extreme, in Swine; it uſually happens in hot weather, from whence, by their exceſs of drinking, many diſtempers proceed.

When you perceive your ſwine greedy or drinking immoderately, boil woodſorrel and houſleek in the water you give them; peg their ears, and put a tent of root of ſweetwort into the holes, and ſo the heat of the liver will be cooled, and the violent thirſt ceaſe.

DRY. To put a horſe to dry meat is to feed him with corn and hay after taking him from graſs; or houſing him.

DUBBING OF A COCK, (with Cock Maſters) a term uſed to ſignify the cutting of a cock's comb and wattles.

DUBBING, (among Anglers) is the making artificial flies, the materials for making which are ſpaniels hair,

hair, hogs hair dyed of different colours; ſquirrels, ſheeps, bears and camels hair, oſtrich, peacock, and turkey wing feathers, *&c.* *See* FISH.

DUCKS are amphibious birds, that live on land and water, of which the male is called a drake: there are two ſorts of them, *viz.* the wild and the tame; the tame duck is fed in the court-yard, walks ſlowly, delights in water, ſwims ſwiftly, but ſcarce ever riſes from the ground to fly. *For* TAME DUCKS *ſee the Article* POULTRY.

As for wild ducks, thoſe who are diſpoſed to employ part of their time in taking them with nets, *&c.* ſhould ever have ſome wild ones made tame for that purpoſe; for the wild never aſſociate themſelves with thoſe that are of the real tame breed: therefore be always provided with ſeven or eight ducks, and as many drakes, for fear of wanting upon any occaſion; becauſe they are often loſt, and much ſubject to miſcarry.

The nets muſt never be placed but where you have a foot of water at leaſt, nor much more; ſo that marſhes, ſands, flats, over-flown meadows, and the like, are the moſt proper places for this ſport.

The nets uſed are the ſame with thoſe for plovers, and they are ſet after the ſame manner, only theſe are under water, and you need no border to conceal the net. The figure, Plate VI. will ſhew you the net ſpread; your main ſticks ſhould be of iron, and ſtrong in proportion to their length.

But if the main ſtick be of wood, faſten good heavy pieces of lead along the cord at about a foot diſtance on the ſides of the net to ſink it down into the water, that the ducks may not eſcape by diving: theſe pieces of lead are repreſented in the cut along the cord Q, S. *See* Plate VI. Fig. 1.

Several ſmall wooden hooks are likewiſe fixed all along the verge of the net A, B, C, D, oppoſite to the perſon that holds the cord to keep it tight, or elſe they alſo place ſome lead there, to hinder the birds from riſing that are caught.

The hooked ſtake X, and the pulley V, ought to be concealed under the water, that the ducks may not ſee them. The lodge ſhould be made of boughs, as under the word plover, which the reader may conſult. Upon the brink of the water, when all is ready, take the ducks and drakes, and place the firſt in this manner: tie ſome of them before your net, and as many behind at Y, by the legs, but ſo that they may ſwim up and down, eating ſuch grain or chippings as you ſhall throw to them for that purpoſe. Keep the drakes by you in your lodge; when you perceive a flock of wild ducks come near you, let fly one of the decoy drakes, which will preſently join the wild ones, in expectation of his mate; and not finding her there, he will begin to call; which being heard by the female tied by the legs, ſhe will begin to cry out, and provoke the others to do the ſame: upon which the drake flies to his mate, and generally draws the whole flock with him, which greedily fall to eat the bait laid for them. Now the ducks being once come within your draught, pull your cords with the quickeſt motion you can; and having thus taken them, let go your decoy-duck, and feed them well; you may kill the wild ones, and ſo ſet your nets again as you ſee occaſion.

The wind happens ſometimes ſo contrary, that the drake cannot hear his mate when ſhe cries; in which caſe you muſt let go a ſecond and a third to bring in the flock you deſign to ſurprize; and your decoy-ducks ſhould have ſome mark of diſtinction, for the more readily knowing them from the wild ones, as the ſewing ſomething about their legs, or the like: when the water is troubled, and it has rained a little, or that the weather is miſty, it is the beſt time to take ducks with nets.

A ſecond way of taking ducks with nets is by two nets, which muſt be ſet in a place where there is at leaſt half a foot water, that they may be concealed; and therefore thoſe who catch ducks in the water ſhould always be booted. *See* Plate VI. Fig. 2. The ſtaves or ſticks B, C, E, D, ought to be made of iron, ſeven feet or ſeven feet and a half long, and proportionably thick: the pickets, or ſticks A, F, ſhould be made ſtrong and half a foot long; the others, D, H, ſhould be of the ſame ſtrength, each having a cord D, C, three fathom long: the ſtaves of the net M, O, ſhould be longer than the others by three inches, or half a foot; the lodge K, ſhould be ſixteen or eighteen fathom diſtant from the nets; the knot N of the cord, where two other cords are made faſt, as N, G, N, O, ſhould be five or ſix toiſes diſtant from the firſt ſtaves; and foraſmuch as all theſe cords of the nets ſhould be faſtened with all your force, ſticks or pieces of wood half a foot long ſhould be fixed ſlopingly in the ground, on the ſide of the letters I, L, M, O, to keep the iron ſtaves down in the water, from whence they bring them out by drawing the cord K, N.

Manage your decoy-ducks and drakes as before; there is no need that the wild ducks ſhould ſwim on the water before you draw your nets, for you take them at the ſame time they alight upon it.

A third way of catching wild ducks, is with bird-lime; of which take three or four pounds of that which is old and rotted; to each pound put two handfuls of charcoal, burnt ſtraw, and as much nut oil as the ſhell of a hazel-nut can contain; mix and work the whole together for a quarter of an hour, and anoint one or more cords therewith, each of them being ten or twelve fathom long; and conveying them to the place where wild ducks frequent, get a boat, if you do not care to go into the water, and let the cords among the ruſhes or other herbage, whither the ducks retire: pitch the two ſtaves in ſuch a manner that the ends may be even with the water, and tie a very ſtiff cord to them, which muſt be borne up on the water with ſome bundles of dry ruſhes; when the ducks are got among the herbs and ruſhes, they will at length come to the cord, which will embarraſs them, at which time they will endeavour to take wing; but not being able to do ſo, they will drown themſelves in endeavouring to get looſe.

A fourth way of taking wild ducks in the water, is with nooſes or ſprings made of horſe hair, otherwiſe called running ſlips and horſe-hair collars, a cheap and eaſy

Duck Nets

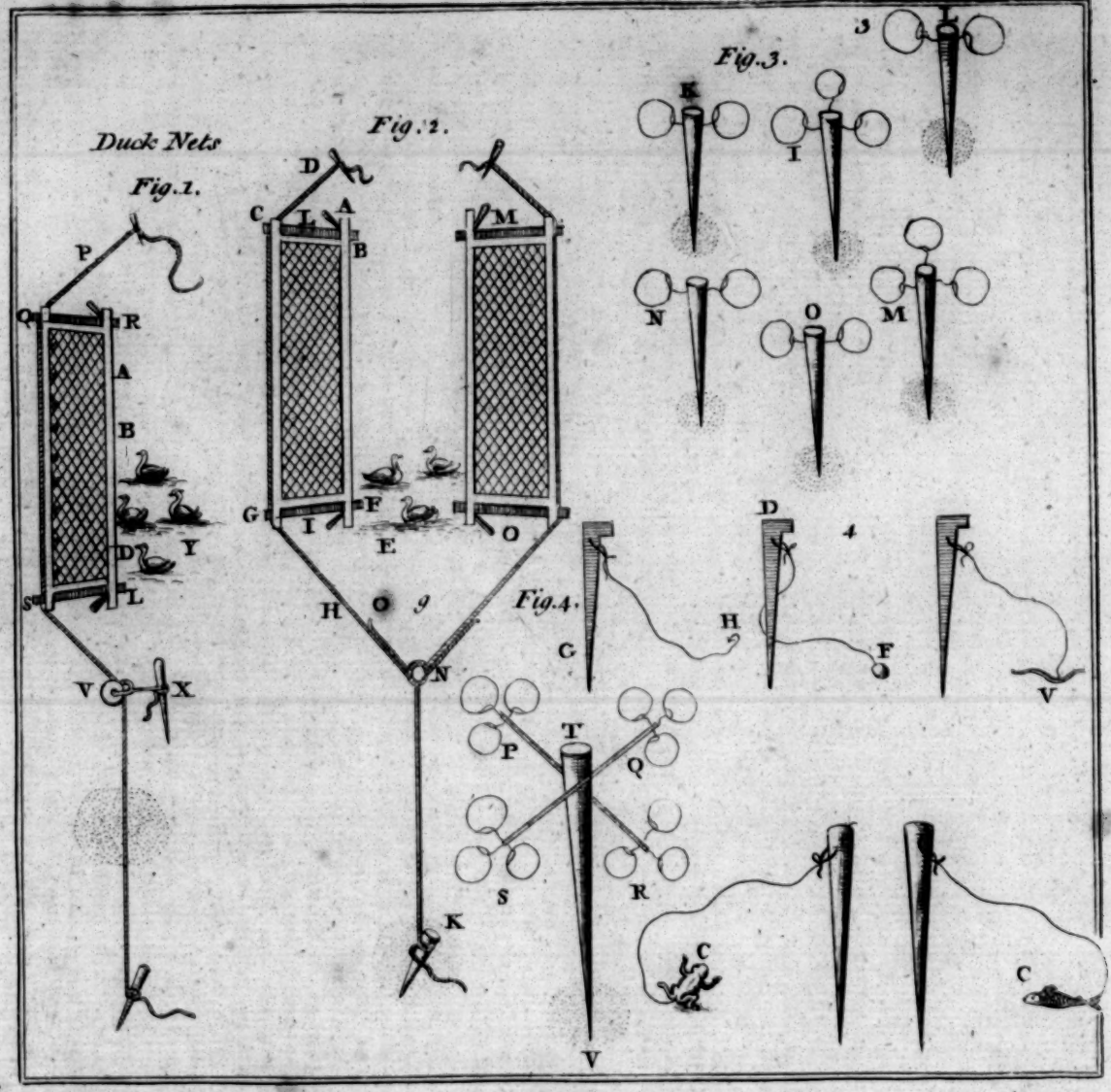


Fig. 1.
P
Q
R
A
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D
Y
L
V
X
Fig. 2.
D
C
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F
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Fig. 3.
K
I
3
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Fig. 4.
D
4
G
H
F
V
P
T
Q
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R
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C
C

eaſy way, eſpecially in ſuch low marſhes as are overflown not above a foot and a half deep; obſerve their moſt frequented haunts, and there throw a little corn for two or three days, to embolden and draw them on: for having once fed there, they will not fail to return thither every day.

You muſt then plant ſeven or eight dozen of your running ſlips of ſmall wire or horſe-hair collars, tied two or three together, as in Plate VI. Fig. 3, to little ſharp pointed ſtakes, ſhewn by the letters I, K, L, M, N, O; they muſt be fixed ſo far into the ground, that the upper ends of them and the collars may be juſt hid a little under the water; and then throw ſome barley, or the like grain, among them, that ſo you may catch them either by the neck or legs: you muſt reſort thither twice or thrice every day to ſee how you ſucceed.

The collars may in like manner be placed as in the ſecond figure following: Take a ſharp pointed ſtake about two feet long, in proportion to the depth of the water, as T, V, bore two holes through the thick end T, into which put two ſticks, as P, R, and Q, S, each of them ſhould be about the thickneſs of one's little finger, and two feet long; they muſt be firmly ſet in and well pegged; faſten your collars or ſlipping knots to the end of your ſtick, as the letters P, Q, R, S, denote: this done, and having fixed your ſtake T, V, in the ground ſo far that it may all be under water, ſo as that your knots may juſt ſwim open on the top of it: then caſt your grain or chippings of bread in and out among the ſaid ſtakes, the better to entice the ducks to come: you may make uſe of ſeveral of theſe ſtakes, and place them ſeven or eight feet aſunder.

There is a fifth way of catching wild ducks, and that is with hooks and line, as appears by Fig. 4.

Faſten your lines well and firmly to ſharp pointed ſticks, as ſhewn by the figure marked G, and ſtake down the ſticks into the ground, then bait your hook H with an acorn or bean F, or with a fiſh or frog, as at C: you may alſo bait with a worm, as at V, by theſe you may learn to bait with paſtes, or the like; and you would do well to feed the ducks two or three days before, at the place where you intend to ſet your lines and hooks, the better to draw them on, and embolden them; and you ſhould alſo viſit your ſpot every morning and evening, to take up what you have caught, and to rectify what may be amiſs.

Some of our *Engliſh* authors having ſet down a method how we ſhall preſerve wild ducks, ſay we muſt wall in a little piece of ground, wherein there is ſome ſmall pond or ſpring, covering the top of it all over with a ſtrong net; the pond muſt be ſet with many tufts of oziers, and have many ſecret holes and creeks; which will inure them to feed there, though confined.

The wild duck, when ſhe lays, will ſteal from the drake, and hide her neſt, or elſe he will ſuck her eggs. After ſhe has hatched, ſhe is very careful to breed her young, and needs no attendance more than meat, which ſhould be given twice a day, as ſcalded bran, oats, or fitches. The houſe hen will hatch wild duck eggs as well as tame, and the meat will be much better; yet every time the ducklings go into the water, they are in danger of the kites, becauſe the hen cannot guard them. Teals, widgeons, ſhell drakes, or green plovers, may be ordered alſo in the ſame manner as wild ducks.

DUCKER, } A kind of cock that in fighting will
DOUCKER, } run about the clod, almoſt at every ſtroke he gives.

DULL; the marks of a dull, ſtupid horſe, are white ſpots round the eye and on the tip of the noſe upon any general colour whatſoever: theſe marks are hard to be diſtinguiſhed in a white horſe; though the vulgar take the ſpots for ſign of ſtupidity, it is certain they are great ſigns of the goodneſs of a horſe, and the horſes that have them are very ſenſible and quick upon the ſpur.

DUN. *See* COLOURS OF A HORSE.

DUN-HOUND: theſe dogs are good for all chaſes, and therefore of general uſe.

The beſt coloured are ſuch as are dun on the back, having their fore-quarters tann'd, or of the complexion of a hare's legs: but if the hair on the back be black and their legs freckled with red and black, they then uſually prove excellent hounds, and indeed there are few of a dun colour to be found bad: and the worſt of them are ſuch whoſe legs are of a whitiſh colour.

It is wonderful in theſe creatures, to obſerve how much they ſtick upon the knowledge of their maſter, eſpecially his voice and horn, and no one's elſe: nay more than that, they know the diſtant voices of their fellow, and do know who are babblers and liars, and who not; and will follow the one and not the other.

Now for hounds; the weſt country, *Cheſhire*, and *Lancaſhire*, with other wood-land and mountain countries, breed our ſlow hounds, which is a large dog, tall and heavy.

Worceſterſhire, *Bedfordſhire*, and many well mixt ſoils, where champagne and covert are of equal largeneſs, produce a middle ſized dog, of a more nimble compoſure than the former.

Laſtly, the north parts, as *Yorkſhire*, *Cumberland*, *Northumberland*, and many other plain champagne countries, breed the light, nimble, ſwift, ſlender, fleet hound.

After all theſe, the little beagle is attributed to our country: the ſame that is called the gaze hound: beſides the maſtiff, which ſeems to be a native of *England*, we alſo train up moſt excellent greyhounds (which ſeem to have been brought hither by the *Gauls*) in our open champagnes.

All theſe dogs have deſerved to be famous in adjacent and remote countries, whither they are ſent for great rarities, and ambitiouſly ſought for by their lords and princes; although only the fighting dogs ſeem to have been known to the ancient authors; and perhaps in that age hunting was not ſo much cultivated by our own countrymen.

DUNG OF A HORSE, ſhould be obſerved upon a journey; if it be too thin, it is a ſign that either his water was too cold and piercing, or that he drank too greedily of it; if there be among his ordure whole grains of oats, either he has not chewed them well, or his ſtomach is weak; and if his dung be black, dry,

or come away in very ſmall and hard pieces, it is a ſign that he is over heated in his body.

Viſcous or ſlimy dung, voided by a race-horſe, ſhews that he is not duly prepared; in which caſe his garlic balls and exerciſe are to be continued till his ordure come from him pretty dry, and without moiſture.

DUNG-WORMS, are a kind of fly-worms, of a ſhort and ſomewhat flat body, found in great abundance among cow-dung in the months of *September* and *October*. Theſe have all their metamorphoſes into the fly-ſtate performed within a ſhell of their own ſkin. They are excellent baits for angling.

DUST AND SAND will ſometimes ſo dry the tongues and mouths of horſes, that they loſe their appetite.

In ſuch caſe give them bran well moiſtened with water, to cool and refreſh their mouths and tongues, or moiſten their mouths with a wet ſponge to oblige them to eat.

DUST: to beat the duſt. *See* BEAT.

EARS OF AN HORSE, ſhould be ſmall, narrow, ſtraight, and the whole ſubſtance of them thin and delicate: they ought to be placed on the very top of the head, and their points, when ſtiled, or pricked up, ſhould be nearer than their roots.

When a horſe carries his ears pointed forwards, he is ſaid to have a bold, hardy, or briſk ear; alſo when a horſe is travelling, he ſhould keep them firm, and not (like a hog) mark every ſtep by motion of his ear.

To cure a pain in a horſe's ears, firſt cleanſe them well, for fear the horſe ſhould run mad, and then put in ſome honey, ſalt-petre, and very clean water; mix the whole together, and dipping a linen cloth therein to attract the moiſture, continue the application till the cure is effected.

To take out any thing incommodious in a horſe's ear, put in an equal quantity of old oil and nitre, and thruſt in a little wool: if ſome little animal has got in, you muſt thruſt in a tent faſtened to the end of a ſtick, and ſteeped in glutinous roſin; turn it in the ear, that it may ſtick to it.

If it be any thing elſe you muſt open the ear with an inſtrument, and draw it out with an iron; or you may ſquirt in ſome water; and if it be a wound, you muſt drop in proper medicines to cure it.

To EARTH, is to go under ground, to run into a lurking hole, as a badger or a fox does.

EARTH-WORMS, or reptiles which ſerve both for food for birds, and baits for fiſh: and as it is ſometimes difficult to find them, the following methods are ſet down, by which you may have them almoſt in all ſeaſons of the year.

The firſt, is to go into a meadow, or ſome other place, full of herbs or graſs, where you ſuppoſe there may be ſuch ſorts of worms, and there to dance, or rather trample with your feet for about half a quarter of an hour, without ceaſing, and you will ſee the worms come out of the earth about you, which you may gather, not as they are creeping out, but after they are come quite out; for if you ſhould ceaſe trampling for never ſo ſhort a time, they would go in again.

Another time to get worms, is when there are green walnuts upon the trees; take a quarter, or half a pound of them, and put into the quantity of a pail of water, rubbing the huſks of the nuts upon a brick, or ſquare tile, holding them in the bottom of the water: continue to do this till the water is become bitter, and of a taſte that the worms will not like: ſcatter this water upon the place where you judge worms to be, and they will come out of the ground in a quarter of an hour. *See* WORMS.

EBRILLADE, is a check of the bridle which the horſemen give to the horſe by a jerk of one rein, when he refuſes to turn.

An ebrillade differs from a ſaccade in this, that a ſaccade is a jerk made with both reins at once.

Moſt people confound theſe two words, under the general name of a check or jerk of the bridle; but let it be as it will, it is always a chaſtiſement, and no aid, and the uſe of it is baniſhed the academies.

ECAVESSADE, is a jerk of the caveſſon.

ECHAPE: an echape is a horſe got between a ſtallion and a mare of a different breed and different countries.

ECHAPER, to ſuffer a horſe to eſcape, or ſlip upon the hand; a galliciſm uſed in the academies, implying to give head, or put on at full ſpeed.

ECOUTE; a pace or motion of a horſe. He is ſaid to be ecoute, or liſtening, when he rides well upon the hand and heels, compactly put upon his haunches, and hears or liſtens to the heels or ſpurs, and continues duly balanced between the heels, without throwing to either ſide.

This happens, when a horſe has a fine ſenſe of the aids of the hand and heel.

ECURIE, is a covert place for the lodging and houſing of horſes.

ECUYER, a *French* word (in *Engliſh* querry) which has different ſignifications in *France*.

In the academy or manage, the riding maſter goes by the name of *Ecuyer*.

EEL. It is agreed by moſt men, that the eel is a moſt dainty fiſh; the *Romans* have eſteemed her the Helena of their feaſts, and ſome the queen of palate-pleaſure. But moſt men differ about their breeding: ſome ſay they breed by generation as other fiſh do, and others that they breed, as ſome worms do, of mud; as rats and mice, and many other living creatures are bred in *Egypt*, by the ſun's heat, when it ſhines upon the overflowing of the river *Nilus*: or out of the putrefaction of the earth, and divers other ways. Thoſe that deny them to breed by generation as other fiſh do, aſk, if any man ever ſaw an eel to have a ſpawn or melt? and they are anſwered, that they may be as certain of their breeding as if they had ſeen ſpawn: for they ſay, that they are certain that eels have all parts fit for generation, like other fiſh, but ſo ſmall as not to be eaſily diſcerned, by reaſon of their fatneſs; the he and the ſhe eel may be diſtinguiſhed by their fins.

And

And RONDELETIUS says, he has seen eels cling together like dew-worms.

And others say, that eels growing old, breed other eels out of the corruption of their own age, which Sir FRANCIS BACON says, exceeds not ten years. And others say, that as pearls are made of glutinous dew-drops, which are condensed by the sun's heat in those countries, so eels are bred of a particular dew falling in the months of *May* or *June* on the banks of some particular ponds or rivers, adapted by nature for that end, which in a few days are by the sun's heat turned into eels; and some of the ancients have called the eels that are thus bred, the offspring of JOVE. There has been seen in the beginning of *July*, in a river not far from *Canterbury*, some parts of it covered over with young eels about the thickness of a straw; and these eels lay on the top of that water, as thick as motes are said to be in the sun: the like of other rivers, as namely the *Severn*, where they are called yelvers; and in a pond or mere near *Staffordshire*, where about a set time in summer, such small eels abound so much, that many of the poorer sort of people that inhabit near to it, take such eels out of this mere with sieves or sheets, and make a kind of eel-cake of them, and eat it as bread. And GESNER quotes venerable BEDE to say, that in *England* there is an island called *Ely*, by reason of the innumerable number of eels that breed in it. But that eels may be bred as some worms, and some kind of bees and wasps are either of dew, or out of the corruption of the earth, seems to be made probable by the barnacles and young goslings bred by the sun's heat, and the rotten planks of an old ship, and hatched of trees; both which are related for truths by DU BARTAS and LOBEL, CAMDEN, and GERHARD in his *Herbal*.

It is said by RONDELETIUS, that those eels that are bred in rivers that relate to, or are nearer to the sea, never return to the fresh waters, as the salmon does, when they have once tasted the salt water; and though Sir FRANCIS BACON will allow the eel's life to be but ten years, yet he, in his history of life and death, mentions a lamprey belonging to the *Roman* emperor, to be made tame, and so kept for almost threescore years: and that useful and pleasant observations were made of this lamprey, that CRASSUS the orator who kept her, lamented her death. And we read in doctor HAKEWELL, that HORTENSIUS was seen to weep at the death of a lamprey that he had kept long.

It is granted by all or most men, that eels, for about six months, that is to say, the six cold months of the year, stir not up and down, neither in the rivers, nor in the pools in which they usually are, but get into the soft earth or mud, and there many of them together bed themselves, and live without feeding upon any thing, as some swallows have been observed to do in hollow trees for those six cold months: this they do, as not being able to endure winter weather: for GESNER quotes ALBERTUS to say, that in the year 1125, that year's winter being more cold than usually, eels did by nature's instinct get out of the water into a stack of hay in a meadow upon dry ground, and there bedded themselves, but at last a frost killed them. And CAMDEN relates that in *Lancashire*, fishes were digged out of the earth with spades, where no water was near to the place. The eel is impatient of cold, so it hath been observed, that in warm weather an eel has been known to live five days out of the water.

Some curious searchers into the natures of fish, observe, that there are several sorts or kinds of eels, as the silver eel, and green eel, with which the river *Thames* abounds, and those are called grigs; and a blackish eel, whose head is more flat and bigger than ordinary eels; also an eel whose fins are reddish, and seldom taken in this kingdom: these several kinds of eels are, some say, diversly bred out of the corruption of the earth, and some by dew, and other ways; and it is affirmed by some for certain, that the silver eel is bred by generation, but not by spawning as other fish do, but that her brood come alive from her, being then little live eels, no bigger nor longer than a pin.

The eel may be caught with divers kinds of baits: as with powdered beef, with a lob-worm, a minnow, or gut of a hen, chicken, or the guts of any fish, or with almost any thing, for he is a greedy fish. He may be caught with a little lamprey, which some call a pride, and may in the hot months be found many of them in the *Thames*, and in many mud-heaps in other rivers.

Note, That the eel seldom stirs in the day, but then hides himself, and therefore is usually caught by night. He may be then caught by laying hooks, which you are to fasten to the bank or twigs of a tree; or by throwing a string cross the stream with many hooks at it, and those baited with the aforesaid baits, and a clod or plummet, or stone, thrown into the river with this line, that so you may in the morning find it near to some fixt place, and then take it up with a drag-hook or otherwise.

Eels do not usually stir in the day time, for then they hide themselves under some covert, or under boards or planks about flood gates, or weares, or mills, or in holes in the river banks; so that you observing your time in a warm day, when the water is lowest, may take a strong small hook tied to a strong line, or to a string about a yard long, and then into one of these holes, or between any boards about a mill, or under any great stone or plank, or any place where you think an eel may hide or shelter herself, you may, with the help of a short stick put in your bait, but leisurely, and as far as you may conveniently: and it is scarce to be doubted, but that if there be an eel within the sight of it, the eel will bite instantly, and as certainly gorge it: you need not doubt to have him, if you pull him not out of the hole too quickly, but pull him out by degrees; for he lying folded double in his hole, will with the help of his tail break all, unless you give him time to be wearied with pulling, and so get him out by degrees, not pulling too hard.

The haunts of the eel are weeds, under roots, stumps of trees, holes, and clefts of the earth, both in the banks and at the bottom, and in the plain mud: where they lie with only their heads out, watching for prey. They are also found under great stones, old timber, about

flood-gates, weares, bridges, and old mills: they delight in ſtill waters, and in thoſe that are foul and muddy; though the ſmaller eels are to be met with in all ſorts of rivers and ſoils.

Although the manner in which eels, and indeed all fiſh are generated, is ſufficiently ſettled, as appears in the foregoing notes, there yet remains a queſtion undecided by naturaliſts, and that is, Whether the eel be an oviparous or a viviparous fiſh? WALTON inclines to the latter opinion. The following relation from BOWLKER may go near to determine the queſtion.

Taking it for granted then that eels do not ſpawn, all we have to ſay in this place is, that though, as our author tells us, they are never out of ſeaſon, yet, as ſome ſay, they are beſt in winter, and worſt in *May*: and it is to be noted of eels, that the longer they live the better they are. *Angler's Sure Guide*, 164.

Of baits for the eel, the beſt are lob-worms, loaches, minnows, ſmall pope or pearch with the fins cut off, pieces of any fiſh, eſpecially bleak, he being very lucid, with which I have taken very large ones.

As the angling for eels is no very pleaſant amuſement, and is always attended with great trouble and the riſque of tackle, many, while they angle for other fiſh, lay lines for the eel, which they tie to weeds, flags, *&c.* with marks to find them by; or you may take a long packthread line, with a leaden weight at the end, and hooks looped on at a yard diſtance from each other: faſten one end to the flags, or on the ſhore, and throw the lead out, and let the line lie ſome time, and in this way you may probably take a pike.

The river *Kennet* in *Berkſhire*, the *Stour* in *Dorſetſhire*, *Irk* in *Lancaſhire*, and *Ankham* in *Lincolnſhire*, are famed for producing excellent eels: the latter to ſo great a degree, as to give riſe to the following proverbial rhyme:

Ankham eel, and *Witham* pike,
In all *England* is none like.

But it is ſaid there are no eels ſuperior in goodneſs to thoſe taken in the head of the *New River* near *Iſlington*; and I myſelf have ſeen eels caught there with a rod and line, of a very large ſize.

Eels contrary to all other fiſh, never ſwim up, but always down the ſtream.

A Way of taking Eels.

Take five or ſix lines (or what number you think fit) each of them about ſixteen yards long, and at every two yards make a nooze to hang on a hook armed, either to double thread or ſilk twiſt, for that is better than wire: bait your hooks with millers thumbs, loaches, minnows, or gudgeons: to every nooze let there be a line baited, and all the lines muſt lie acroſs the river, in the deepeſt place, either with ſtones, or pegged down, lying in the bottom. You muſt watch all night, or riſe very early in the morning at break of day (or elſe you will loſe many that were hung) and draw up the lines, upon each of which you may expect two or three eels or grigs.

EEL-SPEAR; this inſtrument is made for the moſt part with three forks or teeth, jagged on the ſides: but ſome have four, which laſt are the beſt; this they ſtrike into the mud at the bottom of the river, and if it chance to light where they lie, there is no fear of taking them.

But to take the largeſt eels of all, night-hooks are to be baited with ſmall roaches, and the hooks muſt lie in the mouth of the fiſh.

EEL-BACK'D HORSES, are ſuch as have black liſts along their backs.

EFFECTS OF THE HAND, are taken for the aids, *i. e.* the motions of the hand that ſerve to conduct the horſe.

There are four effects of the hand, or four ways of making uſe of the bridle, namely, to puſh the horſe forwards, or give him head; to hold him in; and turn the hand either to the right or left. *See* NAILS.

ELVERS, a ſort of grigs, or ſmall eels, which at a certain time of the year ſwim on the top of the water, about *Briſtol* and *Glouceſter*, and are ſkimmed up in ſmall nets. By a peculiar manner of dreſſing they are baked in little cakes, fried, and ſerved up to table.

EMBRACE THE VOLT. A horſe is ſaid to embrace a volt, when in working upon volts he makes a good way every time with his fore-legs.

Such a horſe has embraced a good deal of ground; for from the place where his fore-feet ſtood, to where they now ſtand, he has embraced, or gone over, almoſt a foot and a half.

If he does not embrace a good deal of ground, he will only beat the duſt; that is, he will put his fore-feet juſt by the place from whence he lifted them.

Thus the oppoſite term to embrace a volt is, beating the duſt.

A horſe cannot take in too much ground, provided his croupe does not throw out; that is, provided it does not go out of the volt.

EMPRIMED (Hunting term) uſed by hunters when a hart forſakes the herd.

To ENDEW (in Falconry) is a term uſed when a hawk ſo digeſts her meat, that ſhe not only diſcharges her gorge of it, but even cleanſes her pannel.

ENGOUTED (in Falconry) is a term uſed when a hawk's feathers have black ſpots in them.

ENLARGE A HORSE, OR MAKE HIM GO LARGE, is to make him embrace more ground than he covered.

This is done when a horſe works upon a round, or upon volts, and approaches too near the centre; ſo that it is deſired he ſhould gain more ground, or take a greater compaſs.

To enlarge your horſe, you ſhould prick him with both heels, or aid him with the calves of your legs, and bear your hand outwards.

Your horſe narrows, enlarge him, and prick him with the inner heel, ſuſtaining him with the outer leg, in order to preſs him forwards, and make his ſhoulders go.

Upon ſuch occaſions, the riding maſters cry only, large, large. *See* INLARGE.

To

To ENSEAM A HAWK, } (in Falconry) is a term
To ENSAIM A HAWK, } uſed for purging a falcon, or horſe of his glut and greaſe.

ENSEELED, (in Falconry) a term uſed of a hawk, which is ſaid to be enſeeled, when a thread is drawn through her upper eye-lid, and made faſt under her beak, to take away or obſtruct the ſight.

ENTABLER. A word uſed in the academies, as applied to a horſe whoſe croupe goes before his ſhoulders in working upon volts: for in regular manage, one half of the ſhoulders ought to be before the croupe. Your horſe entables, for in working to the right, he has an inclination to throw himſelf upon the right heel, but that fault you may prevent by taking hold of the right rein, keeping your right leg near, and removing your left leg as far as the horſe's ſhoulders.

A horſe cannot commit this fault without committing that fault that is called in the academies aculer, which ſee; but aculer may be without entabler. *See* ACULER *and* EMBRACE.

To ENTER A HAWK, a term uſed of a hawk, when ſhe firſt begins to kill.

To ENTER HOUNDS, is to inſtruct them how to hunt.

The time of doing this is when they are ſeventeen or eighteen months old, then they are to be taught to take the water and ſwim; they are to be led abroad in the heat of the day to enable them to endure exerciſe: they muſt be led through flocks of ſheep and warrens to bring them to command.

They muſt be brought to know their names, to underſtand the voice of the huntſman, the ſound of the horn, and to uſe their own voices.

Noon is the beſt time of entering them, in a fair warm day; for if they be entered in a morning, they will give out when the heat comes on.

Take in the moſt advanced, that the game may not ſtand long before them, but that the hounds may be rewarded; you ought to do this at leaſt once a week, for two months ſucceſſively.

By this means they will be ſo fleſhed and ſeaſoned, with that game you enter them at, that they will not leave off the purſuit.

You muſt alſo take care to enter them with the beſt and ſtaunchеſt hounds that can be got, and let there be not one barking cur in the field.

The hare is accounted the beſt game to enter your hounds at, for whatſoever chaſe they are deſigned for, they will thereby learn all turns and doubles, and how to come to the hollow; they will alſo come to have a perfect ſcent, and hard feet, by being uſed to highways, beaten paths, and dry hills.

They muſt at firſt have all the advantages given them that may be, and when the hare is ſtarted from her form, let the ſcent cool a little, obſerving which way ſhe went, and then let the hounds be laid on with the utmoſt help and advantage that can be, either of wind, view, or hollow, or the pricking in her paſſage.

Nor will it be amiſs, if they have the advantage of a hare tired the ſame morning in her courſe.

Care muſt alſo be taken that they hunt fair and even, without lagging behind, ſtraggling on either ſide, and running wildly on head: and in caſe any be found committing ſuch faults, they muſt be beaten into the reſt of the pack, and forced to the ſcent along with them.

The like is to be done if they refuſe to ſtrike upon a default, but run on babbling and yelping without the ſcent, by doing which they draw away the reſt of the dogs, until ſome of the elder dogs take it, then let them be cheriſhed with horn and hollow.

If any of the young whelps, truſting more to their own ſcents, than to the reſt of the pack, and conſequently are caſt behind, work out the defaults by their own noſes, and come to hunt juſt and true; in ſuch caſes they muſt have all manner of encouragement and aſſiſtance, and they muſt be left to work it out of themſelves at their own pace: for ſuch dogs can never prove ill, if they are not ſpoiled by over haſtineſs and indiſcretion; for a little experience in the hunters, and their own experience, will bring them to be the chief leaders.

When the hare is killed, the dogs muſt not be allowed to break her up, but they muſt be beaten off; then ſhe is to be caſed and cut to pieces, with which the young hounds muſt be rewarded: and by this means, in a ſhort time, the whelps will be brought to great improvements.

Some are of opinion, that the beſt way to enter hounds is to take a live hare, and to trail her upon the ground, ſometimes one way and ſometimes another, and having drawn her at a convenient diſtance off to hide her there, and the dog taking the wind thereof will run to and fro till he finds her.

The huntſman ought to underſtand well the nature and diſpoſition of the hounds in finding out the game, for ſome of them are of that nature, that when they have found out the footſteps they will go forwards without any voice or ſhew of tail.

Others again, when they have found a head, will ſhew the game; ſome again having found the footings of the beaſt, will prick up their ears a little, and either bark or wag their ſtern or ears.

Again, there are ſome that cannot keep the ſcent, but wander up and down and hunt counter, taking up any falſe ſcent; and others again cannot hunt by foot, but only by the ſight of the game.

For entering the hounds at a hart or buck; let him be in the prime of greaſe, for then he cannot ſtand up or hold the chaſe ſo long.

The foreſt pitched upon ſhould have all the relays at equal proportion as near as may be; then let the young hounds be placed with five or ſix old ſtaunch hounds to enter them, and let them be led to the fartheſt and laſt relay, and cauſe the hart or buck to be hunted to them, and being come up, let the old hounds be uncoupled, and having found the hart, having well entered the cry, let the young ones be uncoupled; and if any of them are found to lag behind, whip or beat them forwards.

In what place ſoever you kill the hart, immediately ſlay his neck and reward the hounds; for it is beſt to do ſo while he is hot.

But

But for the more ready entering them, the few following inſtructions may be of uſe:

Let them be brought to the quarry, by taking five or ſix nimble huntſmen, and each having two couple of dogs led in liams, and having unlodged the hart, purſue him fair and ſoftly, without tiring the hounds; and after two or three hours chaſe, when you find him begin to ſink, then caſt off your young ones.

Another method, is to take a buck or ſtag in a toil or net, and having diſabled him by cutting one of his feet, let him looſe, then about half an hour after gather the young hounds together, and having found out the view or ſlot of the buck or hart by the blood-hound, uncouple your young dogs, and let them hunt, and when they have killed their game, reward them with it, while it is hot; the moſt uſual part being the neck flayed.

Some enter their young hounds within a toil, but that is not ſo good: for the hart or buck does nothing then but turn and caſt about, becauſe he cannot run an end; by which means they are always in ſight of him, ſo that if afterwards they were to run at force, a free chaſe being out of ſight, the dogs would ſoon give over. *See* HUNTSMAN.

Here take notice, that with whatſoever you firſt enter the hounds, and therewith reward them, they will ever after love moſt.

Therefore, if you intend them for the hart, enter them not firſt with the hind.

ENTERFERING. A diſeaſe incident to horſes, that comes ſeveral ways, being either hereditary, or by ſome ſtiffneſs in the pace; or by bad and over broad ſhoeing; which cauſes him to go ſo narrow behind with his hinder feet; that he frets one againſt another, ſo that there grows hard mattery ſcabs, which are ſo ſore that they make him go lame; the ſigns being his ill-going, and the viſible marks of the ſcabs.

The cure: Take three parts of ſheeps dung newly made, and one of rye or wheaten flour, which muſt be dried and mixt well with the dung; kneading it to a paſte; then let it be made up into a cake and baked, and apply this warm to the part, and it will heal it ſoon; or elſe anoint it with turpentine, and verdegris, mixt together, finely powdered.

ENTERMEWER, (in Falconry) is a hawk that changes the colour of her wings by degrees.

To ENTERPEN, (in Falconry) a term uſed of a hawk, who they ſay *enterpenneth*; that is, ſhe has her feathers wrapt up, ſnarled, or entangled.

ENTERVIEW, (in Falconry) a term uſed for the ſecond year of a hawk's age.

ENTIER. The *French* word for a ſtone horſe; *entier* is a ſort of horſe that refuſes to turn, and is ſo far from following or obſerving the hand, that he reſiſts it. Thus they ſay:

Such a horſe is *entier* on the right hand, he puts himſelf upon his right heel, and will not turn to the right.

If your horſe is *entier*, and refuſes to turn to what hand you will, provided he flies or parts from the two heels, you have a remedy for him; for you have nothing to do but to put the *Newcaſtle* upon him; *i. e.* ſupple him with a caveſſon made after the Duke of NEWCASTLE's way.

ENTORSES. *See* PASTERN.

ENTRAVES, AND ENTRAVONS. *See* LOCKS.

ENTREPAS, is a broken pace or going, and indeed properly a broken amble, that is neither a walk nor trot, but ſomewhat of an amble.

This is the pace or gait of ſuch horſes as have no reins or back, and go upon their ſhoulders, or of ſuch as are ſpoiled in their limbs.

ENTRIES, (Hunting-term) are thoſe places or thickets through which deer are found lately to have paſſed, by which their largeneſs or ſize is gueſſed at, and then the hounds or beagles are put to them for view.

EPARER. A word uſed in the menage, to ſignify the flinging of a horſe, or his yerking or ſtriking out with his hind legs.

In caprioles, a horſe muſt yerk out behind with all his force; but in balotades he ſtrikes but half out; and in croupades he does not ſtrike out his hind legs at all.

All ſuch yerking horſes are reckoned rude.

ERGOT. Is a ſtub like a piece of ſoft horn, about the bigneſs of a cheſnut, placed behind and below the paſtern joint, and commonly hid under the tuft of the fetlock.

To DIS-ERGOT, or take it out, is to cleave it to the quick with an inciſion knife, in order to pull up the bladder full of water that lies covered with the ergot.

This operation is ſcarcely practiſed at *Paris*, but in *Holland* it is frequently performed upon all four legs, with intent to prevent watery ſores and other foul ulcers.

ESQUIVAINE. An old *French* word, ſignifying a long and ſevere chaſtiſement of a horſe in the menage.

ESSAY OF A DEER, (Hunting-term) is the breaſt or briſket of that animal.

ESTRAC, is the *French* word for a horſe that is light bodied, lank bellied, thin flanked, and narrow cheſted. *See* BELLY, LIGHT BELLIED, JOINTER, *&c.*

ESTRAPADE, is the defence of a horſe that will not obey; who to get rid of his rider, rides haſtily before, and while his fore-hand is yet in the air, yerks out furiouſly with his hind legs, ſtriking higher than his head was before, and during his counter-time goes back rather than advances.

ESTRAY. A beaſt that is wild in any lordſhip, and not owned by any man; in which caſe, if it be cried according to law in the next market towns, and if it be not claimed by the owner within a year and a day, it falls to the lord of the manor.

To EXPEDIATE, ſignifies to cut out the balls of dogs feet, to hinder them from purſuing the King's game. But Mr. MANWOOD ſays, it implies the cutting off the four claws of the right ſide; and that the owner of every dog in the foreſt unexpediated is to forfeit 3s. 4d.

To EXTEND A HORSE, ſome make uſe of this expreſſion, importing to make a horſe grow large.

EYES of MULES, rheums, or diſeaſes, to cure. If any ſpecks or films happen, the powder of burnt alum, or burnt ſalt, will eat them off; afterwards waſhing with eye-bright, or the juice of clary, to clear or take away any inflammation the other has occaſioned: to purge away rheums, give hyſſop and rue boiled in water.

EYES of SHEEP, diſtempers or blemiſhes in, to cure. Diſſolve in eye-bright water, or water of honeyſuckles or ſaladine, or any of theſe bruiſed and infuſed in white wine, powder of bole-ammoniac and alum, with which water take and waſh the eyes afflicted often when it is warm, and it will relieve the grievance.

EYES of SWINE, diſeaſes in, to cure. Take rue, pimpernel, and vervain, each a ſmall handful; dry them in an oven, ſo that they may be powdered; and blow the powder, mixed with the powder of bole-ammoniac, into the eyes affected; it will take away ſpots, and ſtay fluxes of rheums and redneſs. Or,

If the eyes are bloodſhot or have ſpecks, waſh them with the juice of rotten apples and betony, and give ſliced parſnips and turnips in their food; this alſo will take away inflammations in the eyes.

If there be films or ſpots, blow with a quill of the powder of burnt alum into the eye, and it will eat them away; if rheums, or watering, take the juice of houſeleek, celandine, and betony, and waſh the eyes often with it.

EYES, ſore, in bull, ox, cow, or calf, to cure. Take ſix egg-ſhells, and put the meat clean forth, then lay the ſhells between two tile-ſtones, laying the ſtone and ſhells in a hot glowing fire, and burn them well, and cover the edge of the tiles with clay, to keep the aſhes from the ſhells; and when they are burnt, pound them to powder, and ſearce them finely, and it will mend preſently: but blow it in three times a day. Alſo, take white ſugar-candy, pound it ſmall, and blend it with the aforeſaid powder of the ſhells and May butter; or, for want of that, take other butter, without ſalt, and work it into a ſalve; ſo anoint the eyes morning, noon, and night, and it will help them. Or,

Take mutton-bones, and burn them very well, pound them to powder, and ſearce them well; then take burnt alum and tutty, with white ſugar-candy and juice of ivy, and it will help them that have a flame which came by a chaff or ſtroke. Alſo take the marrow of a gooſe wing, and it will help them; alſo take white ſalt and burn it in a dock, or wet cloth; then take the middle core of it, and mix it with the juice of ſaladine, and it will help them; or drop juice of celandine or pimpernel into it.

There is alſo a diſeaſe in the eyes which is called the inflammation of the eyes; coming by blood, and it breeds choler and blindneſs; ſometimes the beaſt ſees a little, and ſometimes not at all.

You muſt firſt cord them in the neck, and bleed them in the temples under the eyes; let them bleed freely, and put in ſome burnt alum and live honey mixed together every day, and they will certainly mend.

EYES of HORSES that are very bright, lively, full of fire, pretty large, and full, are moſt eſteemed; but ſuch as are very big, are not the beſt; neither ſhould they be too goggling or ſtaring out of the head, but equal with it; they ſhould alſo be reſolute, bold, and briſk.

A horſe to appear well ſhould look on his object fixedly, with a kind of diſdain, and not turn his eyes another way.

The eye of an horſe diſcovers his inclination, paſſion, malice, health, and diſpoſition; when the eyes are ſunk, or that the eye-brows are too much raiſed up, and as it were ſwelled, it is a ſign of viciouſneſs and ill-nature.

When the pits above the eye are extremely hollow, it is for the moſt part a certain token of old age, though horſes got by an old ſtallion have them very deep at the age of four or five years; as alſo their eyes and eye-lids wrinkled and hollow.

In the eye there are two things to be conſidered, 1. The cryſtal. 2. The bottom or ground of the eye.

The cryſtal is that roundneſs of the eyes which appears at the firſt view, being the moſt tranſparent part thereof, and it ſhould for clearneſs reſemble a piece of rock cryſtal, ſo that it may be plainly ſeen through; becauſe if it is otherwiſe obſcure and troubled, it is a ſign the eye is not good.

A reddiſh cryſtal, denotes that the eye is either inflamed, or that it is influenced by the moon: a cryſtal that is *feuille mort*, or of the colour of a dead leaf upon the lower part, and troubled on the upper, infallibly indicates that the horſe is lunatic; but it continues no longer than while the humour actually poſſeſſes the eye.

The ſecond part of the eye that is to be obſerved, is the ground or bottom, which is properly the pupil or apple of the eye, and to be good, ought to be large and full: it may be clearly perceived, that you may know if there be any dragon, *i. e.* a white ſpot in the bottom thereof, which makes a horſe blind in that eye, or will do it in a ſhort time; this ſpeck at firſt appears no bigger than a grain of millet; but will grow to ſuch a bigneſs, as to cover the whole apple of the eye, and is incurable.

If the whole bottom of the eye be white, or of a tranſparent greeniſh white, it is a bad ſign, though the horſe be not quite blind, but as yet ſees a little: however it ought to be obſerved, that if you look to his eyes when oppoſite to a white wall, the reflection of it will make the apples of them appear whitiſh, and ſomewhat inclining to the green, though they be really good; when you perceive this, you may try whether his eyes have the ſame appearance in another place.

If you can diſcern as it were two grains of chimney-ſoot fixed thereto, above the bottom of the eye, it is a ſign the cryſtal is tranſparent, and if beſides this, the ſaid be without ſpot or whiteneſs, then you may conclude that the eye is ſound.

You ſhould alſo examine whether an eye which is troubled and very brown, be leſs than the other, for if it be, it is unavoidably loſt without recovery.

Examine diligently thoſe little eyes that are ſunk in the head, and appear very black, and try if you can perfectly ſee through the cryſtal, then look to the bottom of the eye, and ſee that the pupil be big and large;

large; for in all eyes the ſmall, narrow, and long pupils, run a greater riſk of loſing the ſight than any other. *For their Diſorders and Cure, ſee* WATERS.

EYE OF A HORSE. Some general obſervations from thence to diſcover the quality or condition of a horſe:

1. The walk or ſtep of a blind horſe is always unequal and uncertain, he not daring to ſet down his feet boldly when he is led in one's hand; but if the ſame horſe be mounted by a vigorous rider, and the horſe of himſelf be mettled, then the fear of the ſpurs will make him go reſolutely and freely, ſo that his blindneſs ſhall ſcarcely be perceived.

2. Another mark by which a horſe that is ſtark blind may be known, is, that when he hears any perſon entering the ſtable, he will inſtantly prick up his ears, and move them backwards and forwards; the reaſon is, becauſe a ſprightly horſe having loſt his ſight miſtruſts every thing, and is continually in alarm upon the leaſt noiſe he hears.

3. When horſes have either the real or baſtard ſtrangles, or are changing their foal teeth, or are putting out their upper tuſhes, ſome of them have their ſight weak and troubled, ſo that a man would judge them blind; and ſometimes they actually become ſo.

Note, that this weakneſs of ſight happens oftener in caſting the corner teeth, than any of the reſt.

4. The colours moſt ſubject to bad eyes are, the very dark grey, the flea-bitten, the white ſpotted, that of peach bloſſoms, and frequently the roan. *For the cure of bad Eyes, ſee* ULCER.

Dr. BRACKEN was well verſed in the ſtructure and complaints of the eyes of horſes, of which Mr. LAWRENCE expreſſes his approbation, and ſays, the diſeaſes of the eyes in horſes, natural and acquired, may be conveniently claſſed as follows:—Inflammation, from whatever cauſe; Humour-blindneſs, Diminution of Sight from Debility of the Organs, Cataract, Gutta Serena, External Accidents.

Previous to entering upon the method of cure, permit me to make a few remarks upon an article of prime conſideration, as a remedy in this caſe, which has been introduced ſince the days of GIBSON, viz. GOULARD's Extract of Saturn, a preparation now more commonly uſed in veterinary practice, than the ſugar, or ſalt of lead. GIBSON makes a moderate uſe of lead in his preſcriptions, juſtly obſerving, that the eye is very delicate, and in a recent hurt ſcarce able to endure the common eye-waters. Dr. DARWIN ſpeaks againſt the too early uſe of ſtimulating eye-waters in opthalmy, and recommends afterwards the ſolution of vitriol, in preference to that of lead. Bold meaſures, it is pretended, ſucceed well with the eyes of horſes, but ſuch pretenſions muſt be received with caution; the eye is a very delicate organ, to what animal ſoever it may belong.

Inflammation of the Eye is always ſufficiently viſible. The eye-lid is cloſed, ſwollen, and weeps; the ball is inflamed, and the veſſels filled with ſtagnant blood appear very plain upon the coat. It is firſt neceſſary to inveſtigate the cauſe, ſince it may be merely the intruſion of ſome ſmall extraneous body, ſuch as a hay-ſeed; which being ſuſpected, the eye ought inſtantly to be ſearched with a ſoft rag, or piece of ſponge dipped in warm ſkim-milk and water, to which may be added a tea-ſpoonful of aqua-vegeto.

A caſe of ſlight, or ſuperficial opthalmy, will generally give way in a few days to topical applications, of the emollient and repellent kind. It is the general practice to have recourſe to repellents in the firſt inſtance. Sometimes has been ſeen the ill ſucceſs of it, by an increaſe of the inflammatory ſymptoms, to allay which it has become neceſſary to make inſtant uſe of emollients. Some have ſucceſsfully treated inflamed eyes in horſes, with warm ſkim-milk and water, repeated often, and bread and milk poultices, until the heat and tenſion had abated; afterwards, with a mild ſolution of Goulard. The moſt authorized practice however is, the immediate uſe of cold ſpring water, or vinegar and water, and repellents. Take one pint of the ſtrained decoction of plaintain, roſemary, and red roſe-buds; or inſtead thereof, a pint of clear water, add one drachm ſugar of lead, and one drachm and half of white vitriol. Or the following aqua-vegeto-mineralis: Clear water, one pint; GOULARD's extract, one hundred drops; beſt brandy, a ſmall glaſs. In this proportion has generally been uſed the extract to the eyes of horſes. Bathe externally, and apply internally, with rag or ſponge, ſeveral times a day. Or honey of roſes, ſpring water, and white of an egg, mixed; and applied with a feather. Some horſes are ſubject all their lives to weak and weeping eyes, upon every ſlight cold, from neglect while colts, and lying about in wet and boggy paſtures; the only remedy is the occaſional uſe of the vegetomineral water. Colts, whilſt breeding their teeth, and horſes with irregular teeth, are liable to ſimilar inconvenience; the ſame external method, with ſalts, and moderate bleeding, and extirpation, or filing down the preternatural teeth.

Humour-blindneſs, or Inveterate Opthalmy. The whole eye is inflamed, both internally and externally, and the admiſſion of light cauſes intolerable pain; the proximate cauſe is either obſtruction in the capillaries, the blood being too denſe for circulation, or a dilatation and weakneſs of the veſſels themſelves. This diſeaſe is curable with two proviſos; being taken in time, and the eye being naturally good; otherwiſe the attempt at cure is fruitleſs.

Liniments for the Eyes. Mild and cooling: ointment of tutty, one ounce; honey of roſes, two drachms; white vitriol, one ſcruple. Detergent: myrrh, finely powdered, half a drachm; camphor, five grains; white vitriol, ten grains; honey, two drachms; rub them together with ſpring water. To be uſed with a feather or pencil in foulneſs from much diſcharge.

For a film, web, or ſpeck left upon the outermoſt coat of the eye, after the inflammation ſhall have ſubſided, there ſeems hitherto to have been no remedy, but corroſive powders or waters; although Dr. DARWIN ſeems to hint at the practicability of an inſtrumental operation. SOLLEYSEL indeed recommends ſtroaking a white film with the thumb covered with wheat flour, the eyes being previouſly waſhed; which he ſays will

will extirpate it much ſooner than the uſe of powders, the beſt of which for the purpoſe, in his opinion, is ſal ammoniac. BRACKEN recommends Dr. MEAD's ointment, which indeed ſeems ever to have been moſt in repute. Take glaſs, reduced to a fine powder, which ſift through fine lawn, and mix with honey. A very ſmall quantity to be tried at firſt, which may be increaſed, if not found to produce irritation and painful ſymptoms. Previous to the uſe of the ointment, perhaps the eye ſhould always be waſhed with ſkim-milk and aqua-vegeto. GIBSON adviſes white vitriol, one drachm, white ſugar-candy half an ounce, ground very fine, to be blown into the eye with a tobacco-pipe once a day; or put into the corner of the eye, with the finger and thumb. Of theſe applications it is neceſſary to give a caution, that before their uſe be hazarded, it be well aſcertained, that the defect intended to be removed be really ſituate upon the outer coat of the eye, ſince ſuch remedies can have no poſſible effect upon the internal parts, and may inflame, irritate, and torture to no manner of purpoſe.

Diminution of Sight from Debility of the Organs. It is doubtleſs owing to their various hard laborious ſervices, that horſes are more ſubject to diſeaſes of thoſe moſt tender and ſenſible organs the eyes, than any other animals; thence perhaps alſo the ſource of their hereditary defects. Hard labour, particularly heavy draught, and repeated violent exertions at dead pulls, will produce blindneſs; alſo poor and unſubſtantial keep. The ſigns are, a gradual loſs of convexity, or plumpneſs in the eyes, with dulneſs, and imperfect ſight at intervals. If the eyes are naturally good, a cure may be wrought by mending the keep of the horſe, and the conſtant uſe, twice a day, of the ſtrengthening ſaturnine collyrium preſcribed in humour-blindneſs. Bathe the temples occaſionally with diſtilled vinegar and brandy mixed.

Cataract or Glaucoma, for they appear to be one and the ſame diſeaſe, is a ſuffuſion, or cloud upon the *pupilla,* commonly called the ſight of the eye, at firſt partially, in the end totally, obſtructing the ingreſs of the rays of light: the proximate cauſe is ſaid to be a preternatural affection of the cryſtalline, or ſecond humour of the eye, which is changed, becomes opaque, and impervious to the rays of light; the remote cauſe, in horſes particularly, is almoſt always natural bad conformation of the organ, by which the humours are prediſpoſed to other cauſes of the diſeaſe. That which is termed in the language of the ſtable, Lunatic, or Moon-blindneſs, is nothing but the intermittent or periodical blindneſs, uſually conſequent of the initient cataract.

Moon-blindneſs generally makes its appearance in horſes, at five, or before ſix years old; and the cataract may be a year or two, or more, in coming to perfection. The ſymptoms in the mean time are well known; cloudineſs, imperfect ſight, in one or both eyes; in ſome a diſcharge, with an eye quite cloſed at intervals; well and tolerably clear again: in others, ſcarce any diſcharge, but a gradual waſting and decay of ſight. As to cure, it is ſcarce to be expected, unleſs in a very rare caſe of a cataract occurring in a naturally good eye, when the diſeaſe would ſubmit to that method already laid down in humour-blindneſs; in general, moon blindneſs is too much a diſeaſe of debility, to require thoſe conſiderable evacuations. Should however the diſeaſe be ſuppoſed to originate in obſtructed humours, and a depraved ſtate of the blood, mercurial phyſic, rowels, and tying up the temporal arteries or veins, according to the nature of the caſe, have been recommended. BRACKEN ſays he couched one horſe with ſucceſs, but he does not tell us whether to render his ſucceſs of real uſe, he made the patient a preſent of a pair of concave ſpectacles, and taught him their uſe; ſince what with the loſs of convexity in the *cornea,* from the diſeaſe firſt, and afterwards from the operation, the horſe would ſee but wildly after all, without artificial help.

In a *Gutta Serena* both eyes are generally affected, and are vulgarly called glaſs eyes, appearing clear and ſhining, although they admit little or no light. They are ſometimes large and prominent like calves eyes, at others ſmall and flat, in colour often of a light blue, the pupil being deep blue, or black. The pupil neither dilates nor contracts, which is pretty much the ſame as to ſay, the eye, or rather its viſion, is extinct; and that again is to ſay, no cure need be expected. The defect has always been ſuppoſed to originate in a want of irritability in the optic nerve. According to DARWIN. Electricity. Bliſters on the head. Opium, and corroſive ſublimate mercury, four or ſix weeks. Would not ſneezing powders be beneficial in the beginning of the diſeaſe, or turning to graſs, that the conſtant depending ſituation of the head in feeding, might invite an acceſſion of blood and nouriſhment to the eyes?

External accidents. Contuſions on the eyes are to be treated with coolers, repellents, fomentations or poultices, and bleeding. Sometimes from a blow or ſtroke upon the eye, the juices, naturally clear and pellucid, will ſtagnate and turn to a pearl colour, or quite white, over the whole ſurface, and the horſe will be nearly or totally blind; but ſuch ſymptoms will in a few days ſubmit to proper treatment. Wounds of the eyes may be mortal if they penetrate the orbit to the bottom, where the branches of the optic nerves paſs from the *cerebellum*; ſhould the *retina* be preſſed, which is compoſed of the optic nerve, and many ſmall twigs of veins and arteries, blindneſs is unavoidable, and perhaps convulſions may enſue; the ſame may be expected from the fracture, or depreſſion of the bones of the orbit, or ſocket, but a wound, or puncture through ſome of the coats and humours is curable; for inſtance, the *cornea,* or horny coat may be perforated, the humour let out, and viſion interrupted, and yet the humour ſhall be repleniſhed, and ſight reſtored in ten or twelve hours time, as cockers often experience: with the exception, however, that the wound be not deep enough to touch the chryſtalline humour, which would become changed or darkened from the accident, and occaſion blindneſs.

The treatment of wounds in theſe parts muſt be conducted on the ſame principles with thoſe of any other, reſpect only being had to their ſuperior ſenſibility, and the danger of inflammation and defluxion.

Bleed. A rowel in the cheſt, or belly. An opening diet. Walking in the ſhade. Avoid all harſh applications, particularly that common one in theſe caſes, oil of turpentine. If the lid be divided, give but one ſtitch with a ſtraight needle, proper for ſuperficial wounds, the parts not being drawn too cloſe, but only ſo far as to bring the edges together, that there may be room for the diſcharge, ſhould the eye-ball be wounded. Honey of roſes, one ounce; tincture of myrrh, one drachm, is the proper dreſſing. Dip a pledget of lint (for tow or hurds are too harſh) into the mixture warmed, and apply it freſh once a day, until the wound be healed. Should fomentations be neceſſary, take the following form: elder-flowers, red roſes, and mallows, each a handful; nitre, half an ounce; GOULARD's extract, three tea-ſpoonfuls. Infuſe in a quart boiling water, ſtrain through a linen cloth, and when cold, add half a pint Red Port wine. Uſe two thick woollen cloths alternately, half an hour, the liquor not being made too hot, but warmed again, ſhould it grow too cool; the quantity will laſt two days, and the eye may be fomented five or ſix times.

EYE OF THE BRANCH OF A BRIDLE, is the uppermoſt part of the branch which is flat with a hole in it, for joining the branch to the headſtall, and for keeping the curb faſt.

EYE OF A BEAN, is a black ſpeck or mark in the cavity of the corner teeth, which is formed about the age of five and a half, and continues till ſeven or eight.

And it is from thence we uſually ſay, ſuch a horſe marks ſtill; and ſuch a one has no mark. *See* TEETH.

EYE-FLAP. A little piece of leather, that covers the eye of a coach-horſe when harneſſed.

EYESS. } A young hawk newly taken out of the
NYESS. } neſt, and not able to prey for herſelf.

It being difficult to bring ſuch a bird to perfection, ſhe muſt be fed, firſt in a cool room that has two windows, one to the north and the other to the eaſt, which are to be opened and barred over with laths, but not ſo wide as for a hawk to get out, or vermin to come in; and the chamber ought to be ſtrewed with freſh leaves, &c.

Her food muſt be ſparrows, young pigeons, and ſheeps hearts; and her meat ſhould be cut while ſhe is very young or little, or ſhred into ſmall pellets, and ſhe muſt be fed twice or thrice a day, according as you find her endure it, or put it over.

When ſhe is full ſummed and flies about, give her whole ſmall birds, and ſometimes feed her on your fiſt, ſuffering her to ſtrain and kill the birds in your hand, and ſometimes put live birds into her room, and let her kill and feed on them, and hereby you will not only neul her, but take her off from that ſcurvy quality of hiding her prey.

Again, go every morning into the room, and call her to your fiſt: as ſoon as ſhe has put forth all her feathers, take her out of the chamber and furniſh her with bells, hewits, jeſſes, and lines; it will be abſolutely neceſſary to feel her at firſt, that ſhe may the better endure the hood and handling; and the hood ſhould be a rufter, one that is large and eaſy, which muſt be put on and pulled off frequently, ſtroking her often on the head, till ſhe ſtands gently; and in the evening unfeel her by candle light. *See the manner of* SEELING A HAWK.

EYRE OF THE FOREST. The juſtice-ſeat or court, which uſed to be held every three years by the juſtices of the foreſt, journeying up and down for that purpoſe.

EYRIE (in Falconry) a brood, or neſt, a place where hawks build and hatch their young.

FALCADE; a horſe makes falcades when he throws himſelf upon his haunches two or three times, as in very quick corvets; which is done in forming a ſtop and half ſtop.

A falcade therefore, is this action of the haunches and of the legs, which bend very low, as in corvets, when you make a ſtop or half ſtop. Thus they ſay,

This horſe ſtops well; for he makes two or three falcades, and finiſhes his ſtop with a peſate.

This horſe has no haunches, he will make no falcades.

The falcades of that horſe are ſo much prettier, that in making them his haunches are low.

Stop your horſe upon the haunches, in making him ply them well; ſo that after forming his falcades, he muſt reſume his gallop without making a peſate; that is, without ſtopping or marking one time: and thus he will make a half-ſtop. *See* STOP, HALF-STOP, HAUNCHES, *and* TIME.

FALCON. } Of theſe there are ſeven kinds, *viz.*
FAULCON. } falcon gentle, the haggard falcon, the Barbary or tartaret falcon, the gerfalcon, the ſaker, the lanner, the Tunician.

Falcons of one kind differ much, and are differently named, according to the time of their firſt reclaiming, places of haunt, and the countries from whence they come; as mewed hawks, ramaged hawks, ſoar hawks, eyeſſes; and theſe again are divided into large hawks, mean hawks, and ſlender hawks.

All theſe have different names and plumes according to the nature of the country from whence they come; as ſome are black, ſome blank or ruſſet: and they alſo are different in diſpoſition, as ſome are beſt for the field, and others for the river.

Names are alſo given to falcons, according to their age and taking.

The firſt is an eyeſs; which name ſhe bears as long as ſhe is in the eyrie. Theſe are very troubleſome in their feeding, they cry very much, and are not entered but with difficulty; but being once well entered and quarried, prove excellent hawks for the hern, river, or any ſort of fowl, and are hardy and full of mettle.

The ſecond is a ramage falcon, which name ſhe retains from the time of her leaving the eyrie, during the months of *June*, *July*, and *Auguſt*.

Theſe are hard to be manned, but being well reclaimed, are not inferior to any hawk.

The

The third is a ſoar-hawk; ſo called, *September*, *October*, and *November*.

The firſt plumes they have when they forſake the eyrie, they keep a whole year before they mew them, which are called ſoar-feathers.

The fourth is termed murzarolt, (the lateſt term is carviſt, as much as to ſay, carry on the fiſt) they are ſo called *January*, *February*, *March*, and *April*, and till the middle of *May*, during which time they muſt be kept on the fiſt.

They are for the moſt part very great baters, and therefore little eaters: they are bad hawks, frequently troubled with filander worms, and are rarely brought to be good for any thing.

The fifth are called enter-mews, from the middle of *May* to the latter end of *December*; they are ſo called becauſe they caſt their coats.

FALCONER. One who tames, manages, and looks after falcons, or other hawks.

FALLING-EVIL IN HORSES. A diſeaſe proceeding from ill blood, and cold thin phlegm gathered together in the fore part of the head, between the paniele and the brain, which being diſperſed over the whole brain, ſuddenly cauſes the horſe to fall, and bereaves him of all ſenſe for a time.

The ſymptoms of this diſtemper are, when the horſe is falling, his body will quiver and quake, and he will foam at the mouth, and when you would think him to be dying, he will riſe up on a ſudden and fall to his meat.

Spaniſh, *Italian*, and *French* horſes, are more ſubject to this diſtemper than *Engliſh*.

The cure: Bleed the horſe in the neck, taking away a good quantity of blood; and bleed him again in the temple veins and eye veins, four or five days after: afterwards anoint his body all over with a comfortable friction, and bathe his head and ears with oil of bay, liquid pitch and tar mixed together, and make him a canvaſs cap quilted with wool, to keep his head warm, and give him a purging or ſcouring. *See* PALSY.

FALLOW, being of a paliſh red colour, like that of a brick half burnt; as fallow deer.

FALLOW-HOUNDS are hardy, and of a good ſcent, keeping well their chaſe without change; but not ſo ſwift as the white; they are of a ſtrong conſtitution, and do not fear the water, running ſurely, and are very hardy; commonly love the hart before any other chaſe.

Thoſe that are well jointed, having good claws, are fit to make blood-hounds, and thoſe which have ſhagged tails are generally ſwift runners.

Theſe hounds are fitter for princes than private gentlemen, becauſe they ſeldom run more than one chaſe, neither have they any great ſtomach to the hare, or other ſmall chaſes: and that which is worſt of all, they are apt to run at tame beaſts.

FALSE QUARTER IN A HORSE, is a cleft, crack, or chine ſometimes on the outſide, but for the moſt part on the inſide of his hoof, being an unſound quarter, appearing like a piece put in, and not at all intire: it is attended with a violent pain and opening as the horſe ſets his foot to the ground.

This diſtemper, as to the inward cauſe, is the effect of a dry brittle hoof, and narrow heels; it comes by ill ſhoeing and paring, or elſe by gravelling, or a prick with a nail or ſtub, which will occaſion halting, and wateriſh blood will iſſue out of the cleft.

The cure: Cut away the old corrupt hoof, and having the whites of nine eggs, powder of incenſe, unſlacked lime, maſtic, verdigris, and ſalt, of each four ounces, mix them together, and dip into them as much hards as will cover the whole hoof, and apply them to the ſorrence, and lay ſwine's greaſe all about it, the thickneſs of an inch or more; do this likewiſe underneath, and tie on all ſo faſt that it may not be ſtirred for a whole fortnight at leaſt, then renew the ſame application, and the horſe will require no other dreſſing to compleat the cure.

FAR, an appellation given to any part of a horſe's right ſide; thus the far foot, the far ſhoulder, *&c.* is the ſame with the right foot, the right ſhoulder, *&c.*

FARCIN, FARCY, FASHION, } A creeping ulcer, and the moſt loathſome, ſtinking, and filthy diſeaſe, that a horſe can be affected with; proceeding from corrupt blood, engendered in the body by over heats and colds, which by ſpreading and dilating themſelves, will at laſt over-run the whole body of the horſe; but it commonly ariſes in a vein, or near ſome maſter vein that feeds and nouriſhes the diſeaſe.

This diſtemper is ſometimes occaſioned by ſpur-galling with ruſty ſpurs, ſnaffle-bitt, or the bite of another horſe infected with the ſame diſeaſe: or if it be in the leg, it may come by one leg's interfering with the other, *&c.*

In the beginning of this diſeaſe, a few ſmall knobs, or tumours, are found on the veins. They reſemble grapes, and are painful to the touch, ſo that the creature will ſhew evident marks of it's uneaſineſs on their being preſſed with the finger. They are at firſt very hard, like unripe grapes, but in a very little time become ſoft bliſters, which break and diſcharge a bloody matter, and become very foul and untoward ulcers. This diſeaſe appears in different places in different creatures. Some ſhew it firſt on the head, ſome on the external jugular vein, ſome on the plate vein, extending from thence downwards on the inſide of the fore-leg towards the knee, or upwards towards the briſket; in ſome it firſt appears about the paſterns, on the ſides of the large veins of the inſide of the thigh, extended towards the groin; and in others on the flanks, ſpreading by degrees towards the lower belly.

The Method of Cure.

When the farcy attacks only one part of a horſe, and where the blood veſſels are ſmall, it may be eaſily cured; but when the plate vein is affected, and turns chorded, and eſpecially when the crurial veins within-ſide of the thigh are in that condition, the cure becomes very difficult, and the creature is rarely fit for any thing after it, but the meaneſt drudgery. Thoſe therefore who depend upon ſome particular medicine, and flatter themſelves with being able to cure with it every ſpecies of the farcy, will find themſelves wretchedly

miſtaken; various medicines are neceſſary, according as the diſeaſe is ſuperficial or inveterate: the former is eaſily cured, nay ſometimes moderate exerciſe alone will be ſufficient; but the latter requires knowledge and experience, and ſometimes baffles the moſt ſkilful, and defies the whole power of medicine. Copious bleedings are abſolutely neceſſary, eſpecially if the creature be fat and full of blood. This evacuation always checks the progreſs of a farcy in it's beginning; but the good effects of it vaniſh too ſoon, eſpecially if the horſe be too low in fleſh. After bleeding, mix four ounces of cream of tartar, with a ſufficient quantity of lenitive electuary, to make it into balls, and give the doſe every other day for a week; and at the ſame time give him three ounces of nitre every day in his water. While theſe medicines are given inwardly to remove the cauſe, let the tumours be rubbed twice a day with the following ointment: Take of ointment of elder, four ounces; of oil of turpentine, two ounces; of ſugar of lead, half an ounce; of white vitriol powdered two drachms: mix the whole well together in a glaſs mortar, and keep it for uſe.

If the tumours break and run a thick well digeſted matter, it is a ſign that the diſeaſe is conquered, and the creature will ſoon be well; but it will be neceſſary to give him two ounces of the liver of antimony every day for a fortnight, and two ounces every other day for a fortnight longer. This method will never fail in a farcy where the ſmall veins only are affected; and a ſmall time will complete the cure.

But when the farcy affects the large blood veſſels, the cure will be far more difficult. When the plate or crurial veins are chorded, loſe no time, but bleed immediately on the oppoſite ſide, and apply to the diſtempered vein the following medicine: Take of the oil of turpentine ſix ounces, put it into a pint bottle, and drop into it by degrees three ounces of oil of vitriol; be careful in mixing theſe ingredients, for otherwiſe the bottle will burſt; when therefore you have dropped in a few drops of the oil of vitriol into the bottle, let the mixture reſt till it has done ſmoaking, and then drop in more, proceeding in this manner till the whole is mixed.

If the farcy be ſituated in the looſe and fleſhy parts, as thoſe of the flanks or belly, the mixture ſhould conſiſt of equal parts of oil of turpentine and oil of vitriol; but when the ſeat of the diſeaſe is in the parts leſs fleſhy, the proportions above are beſt adapted to perform the cure. The medicines muſt be uſed in the following manner: Take a woollen cloth, and with it rub the part affected, and then apply ſome of the compound oil to every bud and tumour; continue this method twice a day. At the ſame time give cooling phyſic every other day; the balls and nitrous draughts mentioned above will anſwer the intention. By this treatment the tumours will digeſt and chords diſſolve: but it will be neceſſary to give the liver of antimony to compleat the cure and prevent the relapſe; and alſo dreſs the ſores when well digeſted with a mixture of bees-wax and oil, which will heal them, and ſmooth the ſkin.

Sometimes the diſeaſe will not eaſily yield to this treatment, eſpecially when ſituated near the flanks and lower belly. In this caſe it will be neceſſary to bathe the parts with the above compound oil as far as the centre of the belly, and at the ſame time give a courſe of antimonial medicines. The following compoſition is reckoned ſtronger than that given above, and on that account is often uſed where the diſeaſe is obſtinate: Take of ſpirits of wine four ounces; of the oil of vitriol and turpentine, of each two ounces; and of verjuice ſix ounces; mix the whole with the caution above directed.

When the above method fails, and the diſtemper becomes inveterate, the following medicine is recommended by an eminent practitioner: Take of linſeed oil half a pint; of the oils of turpentine and petre, of each three ounces; of the tincture of euphorbium and hellebore, of each two drachms; of oil of bays, two ounces; of oil of origanum and double aqua-fortis, of each half an ounce: mix the whole together with great caution, and when the ebullition is over, add two ounces of Barbadoes tar.

This medicine muſt be rubbed on the tumours and chorded veins once in two or three days; obſerving, that if the mouths of the ulcers are choaked up, or the ſkin ſo thick over them as to confine the matter, to open a paſſage with a ſmall hot iron, and deſtroy with vitriol the proud fleſh, after which it may be kept down by touching it occaſionally with oil of vitriol, aqua-fortis, or butter of antimony.

Theſe are the beſt methods for curing the farcy; a diſeaſe which has baffled the attempts of the moſt ſkilful, and deſtroyed many an uſeful creature. Some of our farriers give the moſt draſtic and dangerous medicines, and even put corroſive ſublimate or arſenic into the buds, after opening them. But this is a very bad practice, and often abſolutely kills the creature it was intended to cure; for if a ſmall quantity of it gets into the blood, death is the inevitable conſequence.

Bleed, according to the ſtrength of the horſe, and the apparent violence of the inflammation, though, if he is poor, this evacuation will rather injure than relieve, and is never uſeful after the firſt onſet of the diſeaſe.

Diſſolve four ounces of cream of tartar, in a pint of water, by boiling them a few minutes; and whilſt hot, pour off the clear liquor upon half an ounce of ſenna leaves; let them ſtand until they are cold; then give the ſtrained liquor in one doſe, and repeat it every ſecond morning for a week, or until it begins to purge.

The belly being rendered foluble by the above, give the horſe half an ounce of nitre every day, for three or four weeks, either mixed in a maſh of bran, or diſſolved in his drink, as he will beſt take it.

Night and morning rub the following repellent ointment well into the knobs.

Repellent Ointment.

Take white vitriol, two drachms; ſugar of lead, half

half an ounce; oil of turpentine, two ounces: green ointment of elder, four ounces; mix them well together.

By this means the knobs are uſually diſperſed: but ſometimes they break and run; and if the matter is of a good conſiſtence, and there is a diſpoſition to heal, lay aſide the above repellent ointment, and dreſs with the digeſtive ointment, ſpread on tow, and ſecured in the beſt manner that the part will admit.

If any little lumps remain without hair, give two ounces of the liver of antimony in his corn every day, for a fortnight; then one ounce every day for another fortnight. Inſtances are very rare where the procedure fails to remove this degree of the diſeaſe.

In the ſecond degree, the larger veſſels are enlarged and knotted; the feet, the paſterns, and the flanks are affected: in this caſe, greater difficulty attends; but if you begin early with it, the cure is more eaſy and certain.

In this, as in the former degree, begin with bleeding, according to the horſe's ſtrength; or, as before obſerved, bleeding muſt be omitted if the horſe is poor; due care being taken, as above directed, to render the bowels lax. Let the knobs be rubbed well with the following liniment.

Liniment for the Farcy.

Take oil of turpentine, ſix ounces; drop into it, by a little at a time, three ounces of the oil of vitriol; the oil of vitriol will make the oil of turpentine very hot; for which reaſon the oil of vitriol ſhould be added by very ſmall quantities at a time, and a ſhort ſpace ſhould be allowed betwixt one pouring of the oil and another. When the whole is mixed, let the mixture ſtand to be cold before it is uſed.

This mixture may be made with equal parts of the oil of turpentine and the oil of vitriol, when it is to be applied to the looſe fleſhy parts, as the flanks or the belly.

Wherever there is any ſwelling or knobs, rub them rather gently with a woollen cloth; and then, with a feather or other convenient means, rub in ſome of the above liniment, and repeat it twice a day.

After the bowels are made ſoluble, begin with the uſe of the nitre, as above directed, continue the liniment and the nitre until the knobs digeſt, and are nearly diſſolved: and when the matter appears kindly, and the edges of the ulcers are free from all calloſity, lay aſide the nitre, and give the antimony as before directed. When the ulcers ſeem diſpoſed to heal, apply the digeſtive ointment inſtead of the liniment.

Sometimes ſpurring on the ſide of the belly, or on the flanks, is the cauſe of this diſeaſe there. To diſtinguiſh a few knots of the farcy kind, from knots produced on the veins from any other cauſe, it may be obſerved, that thoſe of the farcy kind are painful and ſmarting; the hair ſtands up like a little tuft on the knots; and if they diſcharge any matter it is of a greaſy, and yet viſcid quality. To remedy theſe, if you perceive them early, before any increaſe is made, apply a poultice of bran and vinegar, or verjuice, and renew it once every day: if proud fleſh ariſes, touch it with the oil of vitriol, or other cauſtic, juſt before each poultice is applied. In this caſe the diſeaſe being local, externals are all that are needful; but if the knots ſpread, in conſequence of a habit or conſtitution favouring their increaſe, rub them with the above liniment, until the matter is of a good quality, and the ulcers ſeem to heal; then bathe them with either of the following mixtures, and give an ounce of the ſaffron of antimony in the corn twice a day.

Diſcutient Mixtures for the Farcy Knots.

Take rectified ſpirits of wine, four ounces; oil of vitriol, and oil of turpentine, of each two ounces; verjuice, or ſharp vinegar, ſix ounces. Or,

Take white vitriol, one ounce; diſſolve it in four ounces of water; add to this, four ounces of ſpirit of wine, in which half an ounce of camphor is firſt diſſolved; and ſix ounces of verjuice, or ſharp vinegar.

In the third and worſt degree, which is when either of the other degrees, through neglect, or other cauſes, become inveterate; or, where at the firſt the diſeaſe appears at one ſide of the body, and ſoon ſpreads upon the other; in this advanced degree of the diſeaſe, the colour and other qualities of the knots and of the ſores ſhould be attended to, for ſometimes they appear yellowiſh, are hardiſh or ſcirrhous about the edges, which proceeds often from the liver; in ſuch caſe the diſeaſe in the liver muſt be attended to, or the cure will be fruſtrated. In caſe of this yellowiſh hue, give the following:

Take one handful of the root of ſharp pointed dock, ſliced; one ounce of monk's rhubarb; of madder, turmeric, and liquorice roots, of each half an ounce; boil them in three pints of water to two pints; then to the ſtrained liquor, while warm, add two drachms of ſaffron, and one ounce of caſtile ſoap: give half of this at night, and the other half in the morning, until the yellowneſs in the knots begin to wear off.

If the knots look blackiſh, a mortification is threatened; and the bark muſt be given freely in forge-water.

If the means recommended in the ſecond degree have been uſed without the deſired efficacy, rub the knots, wherever there is any ſwelling, with the milder blue ointment, to diſperſe them; but if they are already burſt, dreſs the ulcers with the following:

Take quickſilver, and Venice turpentine, of each one ounce; mix well by rubbing them together until the quickſilver diſappears. If the knots burſt, and a proud fleſh fills up their orifices, deſtroy it with a little oil of vitriol; or, if the hardneſs of the ſkin hinders the matter from being diſcharged, open it with a ſmall cautery, then dreſs them with the quickſilver and turpentine above-mentioned.

Mercurial

Mercurial Alterative Balls.

Take quickſilver, two ounces; divide it well with one ounce of Venice-turpentine; then add to it of diapente and gum guaiacum, of each two ounces; honey, enough to make it into eight balls, one of which may be given every ſecond or third morning. Or,

Take antimony, half a pound; quickſilver, four ounces; flour of brimſtone, two ounces; gum guaiacum, zedoary, and galangal roots, of each two ounces; carui or coriander ſeeds, four ounces; make them into a paſte with honey, and give three or four ounces every day.

In ſome caſes, crude antimony given to the quantity of two ounces, every day with the corn, is very effectual: but after each ſuch doſe the horſe ſhould be gently exerciſed an hour or more. In all diſeaſes, indeed, when a courſe of antimony is in uſe, the exerciſe ſhould be daily, but moderate; and it is of ſome importance that the feeding be very good of its kind; it ſhould be nouriſhing and cordial, given in ſmall quantities, and proportionably the oftener. Antimony frequently purges when given in large doſes; this is prevented when given in ſmall ones, and gradually increaſing them; though ſometimes a gentle aſtringent is required to be joined.

But above all other means, giving mercurials as alteratives, promiſes and indeed produces good effects. Repeated ſucceſs hath attended the following in the worſt caſes.

Take turbith-mineral, twenty or thirty grains; Venice-ſoap, an ounce; make them into a ball to be given every other night for a fortnight; then reſt a week, and proceed again in the ſame manner: if it ſickens or gripes the horſe, or if it runs off by ſtool, add to the ball two drachms of philonum, or five grains of opium. If it ſalivates, deſiſt immediately, and give a purge, and repeat it in ſeven or eight days after: when all appearance of the mouth being affected is gone, begin again with the turbith in leſſer doſes, and repeat them juſt ſo as to prevent its ſalivating.

It ſhould not be forgot, that horſes ſalivate more eaſily than men; probably by reaſon of the more open texture of their ſalivary glands; and perhaps, in part, by the horizontal poſition of their guts retarding the paſſage of the mercury longer than it is in men: however, be this as it will, we muſt attend to the firſt appearance of ſalivation, and check it with all poſſible ſpeed, otherwiſe the horſe will be ſuffocated in a few days. A moderate degree of ſalivation cannot be kept up in a horſe, ſo if not early checked the veſſels will preſently be ſo turgid, as to prove deſtructive.

During the courſe, be very careful to keep him from cold: if he is a ſtrong, freſh horſe, he may loſe three or four pounds of blood once or twice on the day that the turbith is omitted; walk him out half an hour or more, when the weather will permit; but when he comes in he muſt be well curried. If his mouth is tender, feed him with boiled oats, or boiled barley, or ſcalded bran.

After the uſe of the turbith is ended, he may have a quart of hemp-ſeed every day with his corn. Lime-water, with the water which is given him to drink; at the firſt mix them in equal parts, afterwards more and more of the lime-water until he will drink it alone.

The blue ointment, commended above, and in various other parts of this work, is made as follows: alſo the ſtronger ſort.

Milder Blue Ointment.

Take of dried hog's lard, four pounds; of quickſilver, one pound; of Venice-turpentine, two ounces. Rub the quickſilver with the turpentine till the quickſilver diſappears, then add the lard, and mix them well together.

Stronger Blue Ointment.

Take of dried hog's lard, two pounds; of quickſilver one pound: of Venice-turpentine, two ounces; mix them as directed for the milder blue ointment.

The ingenious Dr. BRACKEN recommends the mercurial ointment, for rubbing the chords and tumours before they break, in order to diſperſe them; and when they are broke, to dreſs the ſores with a mixture compoſed of equal parts of Venice-turpentine and quickſilver. If by this means the mouth become ſore, a gentle purge ſhould be given to prevent a ſalivation. This is doubtleſs a very good method, and if care be not wanting, will often prove effectual.

He alſo recommends the following alterative ball: Take of butter of antimony and bezoar mineral, of each one ounce; beat them up with half an ounce of cordial ball, and give the bigneſs of a walnut, or three quarters of an ounce every day for two or three weeks, faſting two or three hours after.

Having given the former methods of treatment of this complaint, we ſhall give that recommended by Mr. LAWRENCE, in his excellent Treatiſe on Horſes, who ſays, that the old farriers had ſuch ſtrange methods of curing diſeaſes, that they ſeem at this time of day, to have been the mere vagaries of madmen. In the farcy, after ſtitching up ſome deviliſh medley in the ears of the animal, they put him to hard labour upon ſtraw and water! And both the ancient and the preſent have committed a great error in this caſe, by overlooking the cauſe, and confining their attention ſolely to the viſible effects: they expect too ſpeedy a cure of a chronic diſeaſe, and inſtead of altering and purifying by degrees the blood, where the diſeaſe is grounded, they are ſolely employed in coring, and cauterizing, and poiſoning the ſkin.

The Cure. In the mild farcy, bleed, and next day give an aloetic purge, a mild mercurial one, or ſalts, according to ſtate of body; if much heat, the latter purgative is ever to be preferred. After ſetting of the phyſic, (which may be again required, as well as bleeding

ing at intervals) begin and ſtrictly adhere to an alterative courſe, until the tumours ſhall be effectually diſperſed, how long ſoever that may be, whether ſix weeks or twelve: bathe them in the interim once a day, with doubly camphorated ſpirits and oil of vitriol, equal quantities, mixed; to one pint of which add two ounces of ſpirit of ſal ammoniac. Or, A ſtrong decoction of hemlock, horſeradiſh, and the roots of burdock. Rub the chorded veins every night with an unction of turpentine and ointment of elder, or ſtrong mercurial ointment, if there be no danger of cold; or Venice turpentine, four ounces; quickſilver, ſix drachms; mix. Conſtant moderate labour, by draught, if convenient, will be beneficial. The warm bath is very efficacious in diſſolving the knotty tumours, and cleanſing the ſkin, and ſhould be uſed, where ſuch a conveniency can be had, in moſt ſtages of the farcy. FOXALL, the farrier in *Moorfields*, much to his credit, has that kind of accommodation for horſes at his houſe.

The following drink to ſweeten the blood, will be ſerviceable in every ſtage of this diſeaſe, and indeed in many others, where alteratives are required; but as where medicines muſt be long continued, it is exceedingly fatiguing both to the horſe and man, to be conſtantly drenching and balling, there ſeems a neceſſity for giving drinks in the water, and powders in the corn, firſt mixed in a little wetted bran. Take leaves and bark of elder, inner bark of elm, ſharp-pointed dock-root, well cleaned, and madder, half a handful each; turmeric, and Monk's rhubarb, bruiſed and ſliced; liquorice and ſaſſafras, half an ounce each; roſemary and rue, a handful each; boil in three or four pints of water to a quart; in which diſſolve four ounces cremor tartar, and ſweeten with honey. This however, out of form, once for all; ſince few will be at the trouble of theſe decoctions, when nitrated and ſalined water, of pretty nearly the ſame effect, is procured at ſo much leſs trouble.

Should the tumours yield to the preſſure of the finger, and yet be ſlow to diſcharge, make inciſion with the knife, and dreſs the ulcers with brandy and ægyptiacum mixed, or a ſalve of crude mercury, black ſoap, and muſtard ſeed. In an inveterate caſe, rub once a day, or two days, into the chorded veins and ſwellings, the following: linſeed oil, half a pint; oil of turpentine, and petre, each three ounces; tincture of euphorbium, half an ounce; oil of origanum, and double aquafortis, half an ounce each; after the ebullition is over, add two ounces Barbadoes tar. Should the orifices of the buds be choked up with proud fleſh, or the ſkin ſo thickened over the ulcers, that the matter cannot find vent, make inciſion with a ſharp pointed hot iron, and touch the proud fleſh with oil of vitriol, aquafortis, or butter of antimony; or with a ſalve of crude mercury incorporated with aquafortis, or waſh with the ſublimate water. As to internals, when the moſt efficacious meaſures are neceſſary, the turbith mineral may be ventured in ſmall doſes, one ſcruple to half a drachm, in cordial ball, or Venice ſoap, every night, or every other night, for a fortnight, then abſtain a week, and repeat: or in two drachms of philonium, ſhould the horſe be ſick; or four or five grains of opium or camphor; great care being taken of cold, a very neceſſary caution, both with regard to externals and internals; to which another equineceſſary may be joined, that of avoiding the large blood-veſſels, joints, and tendons, in the application of corroſive medicines. Should the mouth become ſore, and the horſe begin to ſlabber, from the uſe of mercurials, deſiſt, until that ſymptom be removed by gentle purges; then proceed with the mercurial courſe, in ſmaller, and more properly adjuſted doſes. Or, Butter of antimony, and bezoar mineral, (from Apothecaries-hall) one ounce each, mix and powder, and beat it up with half a pound of cordial ball. Doſe, the ſize of a walnut, on an empty ſtomach, the horſe faſting three hours after, every day for three weeks. Moderate walking exerciſe. Or. *Antehecticum Poterii*, two drachms to half an ounce every other day, in cordial ball. Or. The moſt powerful alterant, with cinnabar and powdered guaiacum. There is no curable ſtage of the diſeaſe which theſe medicines will not effectually touch. To recover the loſt hair, rub the bald places twice a day with an ointment made of honey, ointment of elder, ſpermaceti, and French brandy: the firſt ingredients may be incorporated over a clear fire, and the brandy added afterwards. In a livid and unfavourable appearance of the buds, indicating a cold and languid ſtate of the juices, tending to putridity, omit the deobſtruents, and give the bark, once or twice a day, for four days. Take fineſt Peruvian bark, in powder, one ounce; ſteel filings, or prepared ſteel, two drachms; powdered gentian, half an ounce; juniper berries, and chamomile, powdered, half an ounce each; ground ginger, a teaſpoonful; ball, with any aſtringent ſyrup. Would a ſmall quantity of opium add to the efficacy of this medicine? Or. Cordial ball may be uſed, until ſufficient warmth and vigour be reſtored to the blood, and better colour and diſpoſition to the ulcers. Strength enough being left, the cure may be completed with gentle cleanſing purges. Graſs, that of the ſalt-marſhes preferable.

WATER-FARCIN. This diſeaſe has no reſemblance to a true farcy, it is really a dropſy, and is of two kinds, one produced by a feveriſh diſpoſition terminating on the ſkin, as often happens in epidemical colds: the other a true dropſy, where the water is not confined to the belly and limbs, but is found in different parts of the body, where a great number of ſoft ſwellings appear, which yield to the preſſure of the finger. The laſt generally proceeds from foul feeding, or from the latter graſs, or logs, which generally riſes in great plenty, mornings and evenings, at the autumnal ſeaſons, and greatly injure the health of ſuch horſes as continue abroad. Nor is this all, the cold rains common at the ſame time, increaſe the evil, and render the blood ſluggiſh and viſcid.

The firſt ſpecies may be relieved by ſlight ſcarifications in the inſide of the leg and thigh, with a ſharp penknife; but in the other ſpecies, we muſt endeavour to diſcharge the water, recover the craſis of the blood, and brace up the relaxed fibres of the whole body. In order to this, a purge muſt be given every week or

ten

ten days; and immediately after the firſt, the following balls: Take of nitre, two ounces; of quills powdered, half an ounce; of camphor, one drachm; and of honey, a quantity ſufficient to make the whole into a ball.

Let one of theſe balls be given every day; and to render it more effectual, let it be waſhed down with a horn or two of the following drink: Take of black hellebore, freſh gathered, two pounds; waſh, bruiſe, and boil it in ſix quarts of water, till two quarts are waſted; ſtrain off the liquor, and pour on the remaining hellebore two quarts of white wine, place it in a gentle heat, and let it infuſe forty-eight hours; ſtrain it off, and mix both together, and give the horſe an hornful or two after each ball. Or,

When the horſe has been treated in this manner a ſufficient time, that is, till the water is evacuated, and he begins to recover, give him a pint of the following infuſion every night and morning, for a fortnight, faſting two hours after it: Take of gentian roots, and zedoary, of each four ounces; of chamomile-flowers, and the tops of centaury, of each two handfuls; of Jeſuit's bark, powdered, two ounces; of juniper-berries, four ounces; of filings of iron, half a pound; infuſe the whole in two gallons of ale for a week, ſhaking the veſſel often.

FARRIERY. The art and knowledge of preventing, curing, or palliating, the various diſeaſes incident to horſes; the practice of which has been hitherto almoſt intirely confined to a ſet of perſons, who are not only totally ignorant of anatomy, but alſo of the general principles of medicine. It is not therefore ſurpriſing, that their preſcriptions ſhould be equally abſurd as the reaſons they give for adminiſtering them. It cannot indeed be expected that farriers, who are almoſt univerſally illiterate men, ſhould make any real progreſs in their profeſſion. They preſcribe draughts, they rowel, cauteriſe, &c. without being able to give any other reaſon for their practice, but becauſe their fathers did ſo before them. How can ſuch men deduce the cauſe of a diſeaſe from its ſymptoms, or form a rational method of cure, when they are equally ignorant of the cauſes of diſeaſes, and the operation of medicines?

General Directions.

1. It ought to be laid down as a general rule, to give horſes as few medicines as poſſible; and by no means to comply with the ridiculous cuſtoms of ſome, who are frequently bleeding, purging, and giving balls, though their horſes be in perfect health, and have no indication that requires ſuch treatment.

2. Proper management in their feeding, exerciſe, and dreſſing, will alone cure many diſorders, and prevent moſt; for the ſimplicity of a horſe's diet, which chiefly conſiſts of grain and herbage, when good in kind, and diſpenſed with judgment, ſecures him from theſe complicated diſorders which are the general effects of intemperance in the human body.

3. In *France*, *Germany*, and *Denmark*, horſes are ſeldom purged; there they depend on alteratives; the uſe of the liver of antimony we have from the *French*, which is in general a good medicine for that purpoſe, and may, in many diſorders, be ſubſtituted in the room of purging.

4. As hay is ſo material an article in a horſe's food, great care ſhould be taken to procure the beſt: when it is not extraordinary, the duſt ſhould be well ſhaken out before it is put into the rack; for ſuch is very apt to breed vermin.

5. Beans afford the ſtrongeſt nouriſhment of any grain; but are moſt fit for laborious horſes, except on particular occaſions. In ſome ſeaſons they breed a kind of vermin called the red bugs, which are reckoned dangerous; the moſt approved method in ſuch a caſe is to get them dried well and ſplit.

6. Bran ſcalded is a kind of panada to a ſick horſe; but nothing can be worſe than a too frequent application of it, either dry or ſcalded: for it relaxes and weakens the bowels too much. The botts in young horſes may be owing to too much muſty bran and chaff, given with other foul food to make them up for ſale; therefore the greateſt care ſhould be taken that they eat no bran but what is ſweet and good.

7. Oats, well ripened, make a more hearty and durable diet than barley, and are by far more agreeable to the conſtitution of Engliſh horſes. A certain quantity of cut ſtraw and hay mixed with them, is ſometimes of great ſervice to horſes troubled with botts, indigeſtion, and other diſorders.

8. Horſes who eat their litter, ſhould by all means have cut ſtraw and powdered chalk given them with their feed; as it denotes a depraved ſtomach, which wants correcting.

9. Salt-marſhes are the beſt paſture for horſes who have been ſurfeited, as well as for many other complaints; they purge more by dung and urine than any other paſture, and make afterwards a firmer fleſh; their water is for the moſt part brackiſh, and conſequently, as well as the graſs, ſaturated with ſalts from the ſea-water.

10. A ſummer's graſs is often neceſſary; more particularly to horſes glutted with food, and which uſe little exerciſe; but a month or two running is proper for moſt; eſpecially thoſe who have been worked hard, and have ſtiff limbs, ſwelled legs, or wind-galls. Alſo, thoſe whoſe feet have been impaired by quittors, bad ſhoeing, or other accidents, are beſt repaired at graſs. Thoſe lameneſſes particularly require turning out to graſs, where the muſcles or tendons are contracted or ſhrunk; for, by the continual gentle exerciſe in the field, with the aſſiſtance of a patten-ſhoe on the oppoſite foot, the ſhortened limb is kept on the ſtretch, the waſted parts are reſtored to their ordinary dimenſions, and the limb again recovers its uſual tone and ſtrength.

11. Thoſe fields which lie near great towns, and are much dunged, are improper paſture for horſes; and, on obſervation, prove very hurtful to them, if they feed in them all the ſummer.

12. Horſes may be kept abroad all the year, provided they have good ſtabling, and hay to come to at all times, and are well ſheltered from the weather. They are ſeldom ſick when ſo treated; their limbs are then always clean and dry; and, with the allowance of corn,

corn, will hunt, and do more buſineſs than horſes that are always kept within doors.

13. If horſes, when taken from graſs, ſhould grow hot and coſtive, mix bran and chopt hay with their corn; and at times give them a feed of ſcalded bran for a fortnight, or longer: let their diet and exerciſe be moderate for ſome time, and increaſe both by degrees.

14. When horſes are ſoiled in the ſtable, there ſhould be care taken that the herbage be young, tender, and full of ſap; whether it be green barley, tares, clover, or any thing elſe the ſeaſon may produce; and that it be cut freſh, once every day at leaſt, if not oftener.

15. When horſes loſe their fleſh much in ſoiling, they ſhould in time be taken to a more ſolid diet; for it is not in ſoiling as in grazing: where, though a horſe loſes his fleſh at firſt, yet after the graſs has purged him, he ſoon grows fat.

16. Young horſes, who have not done growing, muſt be indulged more in their feeding than thoſe come to their maturity; but, if their exerciſe is ſo little as to make it neceſſary to abridge their allowance of hay, a little freſh ſtraw ſhould always be kept in their racks to prevent their nibbling the manger, and ſo turning crib-biters; they ſhould alſo be ſometimes ſtrapped back, in order to cure them of this habit.

17. It is obvious to every one what care ſhould be taken of a horſe after violent exerciſe, that he cools not too faſt, and drinks no cold water, *&c.* for which reaſon I ſhall wave particular directions.

18. Moſt horſes fed for ſale have the interſtices of their muſcles ſo filled with fat, that their true ſhapes are hardly known. For which reaſon a horſe juſt come out of the dealer's hands ſhould at firſt be gently uſed. He ought to loſe blood, and have his diet lowered, but not too much: walking exerciſe is beſt at firſt, two hours in a day; in a week or fortnight two hours at a time, twice a day; after this treatment for about a month, bleed him again, and give him two or three times a week ſcalded bran, which will prepare him for purging phyſic, that may now be given ſafely, and repeated at the uſual intervals.

19. When a horſe comes out of a dealer's hands, his cloathing muſt be abated by degrees, and care taken to put him in a moderately warm ſtable; otherwiſe the ſudden tranſition would be attended with the worſt conſequences.

Blood-Letting.

This article has already been ſpoken of under its proper head; but, as too much cannot be ſaid on a ſubject ſo important, I ſhall here inſert ſuch other obſervations as were before omitted. Full-fed horſes, that ſtand much in the ſtable, require bleeding now and then; eſpecially when their eyes look heavy, dull, red, and inflamed; as alſo, when they feel hotter than uſual, and mangle their hay.

Young horſes ſhould be bled when they are ſhedding their teeth, as it takes off thoſe feveriſh heats they are then ſubject to. But the caſes that chiefly require bleeding, are colds, fevers of moſt kinds, falls, bruiſes, hurts of the eyes, ſtrains, and all inflammatory diſorders, *&c.*

It is right to bleed a horſe when he begins to grow fleſhy at graſs, or at any other time when he looks heavy: and it is generally proper to bleed before purging.

Let your horſe always be bled by meaſure, that you may know what quantity you take away: two or three quarts are always enough at one time; when you repeat it, allow for the diſorder and the horſe's conſtitution.

Although the operation of blood-letting is generally thought to be pretty well known, yet there are many untoward accidents that frequently happen from the unſkilful and inexperienced in performing it. Mr. Clarke, in his Treatiſe on the Prevention of Diſeaſes incidental to Horſes, gives the following cautions and directions:—

As horſes are naturally timorous and fearful, which is too frequently increaſed by bad uſage and improper chaſtiſement, they require in ſome caſes, particularly in this of bleeding, to be taken unawares or by ſurprize, and the orifice made into the vein before their fears are alarmed. For this reaſon, the fleam and blood-ſtick, as it is called, have been long in uſe, and in ſkilful hands are not improper inſtruments for the purpoſe; although with many practitioners the ſpring-fleam would be much ſafer, and on that account ought to be preferred. When a lancet is uſed, the inſtant the horſe feels the point of it, he raiſes or ſhakes his head and neck, in order to ſhun the inſtrument before the operator has time to make a proper orifice, which frequently proves too ſmall or too large; for this reaſon, thoſe who have tried the lancet have been obliged to lay it aſide.

Many perſons tie a ligature or bandage round the neck, in order to raiſe the vein, and that they may ſtrike the fleam into it with the greater certainty; but a ſlight view of its effects in preventing this, and its other conſequences, will clearly ſhew the impropriety of the practice.

When a ligature is tied round the neck previous to bleeding in the jugular veins, it is to be obſerved, that it ſtops the circulation in both veins at the ſame time; hence they become turgid and very full of blood, inſomuch that they feel under the finger like a tight cord; and as the parts around them are looſe and ſoft, when the ſtroke is given to the fleam, the vein by its hardneſs or tightneſs ſlips on one ſide, of courſe it eludes the ſtroke; hence a deep wound is made by the fleam to no purpoſe, and this is ſometimes too frequently repeated. People who are unſkilful in bleeding, have likewiſe a cuſtom of waving or ſhaking the blood-ſtick, before they ſtrike the fleam, in view of the horſe, whoſe eye is fixed on that inſtrument; and, when they intend to give the ſtroke, they make a greater exertion: hence the horſe, being alarmed by the motion of it, raiſes his head and neck, and a diſappointment follows. The operation is by this means prolonged by reaſon of the ſtruggle that enſues; the ligature at the ſame time ſtill being continued round the neck, a ſtagnation of the blood in the veſſels of the head takes place; and hence it frequently happens, that the horſe falls down in an apoplectic fit. In ſuch caſes the operator, being

diſconcerted, generally deſiſts from any further attempts to draw blood at that time, under the idea that the horſe was vicious and unruly, although the very treatment the horſe had juſt undergone rendered bleeding at this time the more neceſſary, in order to make a ſpeedy revulſion from the veſſels of the head. Therefore, a ligature or bandage ought never to be uſed till ſuch time as the opening is made into the vein; and even then it will not be neceſſary at all times, if the horſe can ſtand on his feet, as a moderate preſſure with the finger on the vein will make the blood flow freely; but, if the horſe is lying on the ground, a ligature will be neceſſary.

But farther, the concuſſion or ſhock the horſe receives through his falling down in the above ſituation, which always will happen if the ligature is continued too long, may cauſe the burſting of a blood-veſſel in the head, and the conſequence may be the horſe's death.

Another cuſtom equally abſurd is allowing the blood to fall among ſtraw in a dunghill, in dry ſand, or in dry duſt, by which means no diſtinct idea can be formed of the quantity that is or ought to be taken away. Horſes in ſuch caſes have, from the loſs of too much blood, fallen down in a faint before the operator thought of ſtopping up the orifice. For this and many other reaſons which might be mentioned, a meaſure, as before noticed, always ought to be obſerved, in order to aſcertain the quantity of blood that is taken away.

Some have a cuſtom of drawing or raiſing out the ſkin too far from the vein when they pin up the orifice; hence the blood flows from the orifice of the vein into the cellular ſubſtance between it and the ſkin, which cauſes a large lump or ſwelling to take place immediately: this frequently ends in what is called a ſwelled neck; a ſuppuration follows, which to cure is both tedious and troubleſome. In caſes where a horſe may be tied up to the rack after bleeding in the neck, pinning up the external orifice may be diſpenſed with; but when a horſe is troubled with the gripes, or any other acute diſeaſe, in which he lies down and tumbles about, it is neceſſary that the orifice be pinned up with care, in order to prevent the loſs of too much blood.

As the neck or jugular vein on the near ſide is commonly opened for conveniency by thoſe who are right-handed, the younger practitioner ſhould learn to perform on both ſides of the neck. This he will find in practice to be not only uſeful but neceſſary, as he may often have occaſion to draw blood from horſes in very awkward ſituations; he will likewiſe find his account in it in a variety of caſes, which here need not be particularized.

It is neceſſary to attend likewiſe to the proper place for making the opening in the neck or jugular vein; for when the orifice is made too low, or about the middle of the neck, where the vein lies deep under the muſcular teguments, the wound becomes difficult to heal, and frequently ends in a ſuppuration, with a jetting out of proud fleſh from the orifice; which, unluckily, is as unſkilfully treated in the common method of cure, viz. by introducing a large piece of corroſive ſublimate into the wound: this not only deſtroys the proud fleſh in the lips of the wound, but a conſiderable portion of the fleſh around it; and in farriery it is called coreing out the vein. It frequently happens, that this corroſive application deſtroys the vein likewiſe; and ſometimes violent hemorrhages follow, ſo as to endanger the life of the creature.

Where the teguments are thinneſt, is the place moſt proper for making the opening in the jugular veins, which from the head is about a hand-breadth, and about one inch below the branching or joining of the vein which comes from the lower jaw, and which may be diſtinctly ſeen when any preſſure is made upon the main branch of the vein.

When the operation is performed with a fleam, the operator ſhould hold it between the fore-finger and thumb of the left hand; he is to make a ſlight preſſure on the vein with the ſecond finger, and before it becomes too turgid or full make the opening; continue the ſame degree of preſſure on the vein, till ſuch time as the quantity of blood to be taken away is received into a proper meaſure.

Another great error, which generally prevails in opening the veins with a fleam, is the applying too great force, or giving too violent a ſtroke to it, by which it is forced through the oppoſite ſide of the vein: hence there is danger of wounding the coats of the arteries, as they generally lie under the veins; or, in ſome particular places, to wounding the tendons, eſpecially when this operation is performed in the legs, thighs, *&c.* or in the veins, commonly called the plate veins, under the breaſt, the conſequences are frequently very troubleſome to remove, and in ſome caſes prove fatal. Mr. GIBSON, in his Treatiſe on the Diſeaſes of Horſes, mentions a caſe of a fine horſe that was blooded in the plate veins for a lameneſs in the ſhoulder, which was followed with a large oval ſwelling about the ſize of a gooſe egg, which extended upwards on the breaſt, and likewiſe down the leg, attended with exceſſive pain, fever, deadneſs in the horſe's looks, and all other ſymptoms of a beginning mortification. In order to avoid the conſequences ſometimes attending theſe local operations in the breaſt, legs, *&c.* and as horſes are more or leſs troubleſome and reſtleſs, whereby accidents of this kind may happen, it will perhaps be adviſeable, in moſt caſes of lameneſs, *&c.* to draw blood from the larger veins in the neck only, where there is leſs danger of accidents, more eſpecially if a ſpring fleam is uſed: for, although it might be of ſome advantage in particular caſes to draw blood as near the affected part as poſſible, yet the bad conſequences often attending it ought to counterbalance any advantages that may be expected from it, eſpecially as the quantity of blood drawn from the ſmall veins is but inconſiderable, and of courſe no great benefit can be expected from it in horſes when they are afflicted.

The principal view in drawing blood is the leſſening of its quantity, by which the remaining maſs circulates with more freedom in the veſſels; it likewiſe takes off the inflammatory tendency of the blood, removes ſpaſms, &c. and prevents other bad conſequences that may follow, eſpecially in plethoric habits; and it ought always to be remembered, that, when the ſigns or ſymptoms of a diſeaſe are taken from the motion of the blood,

blood, the diſorders ariſing from it depend upon its circulation being either increaſed or diminiſhed; hence, therefore, all changes which take place in the texture, quantity, and quality, of the blood, are attended with a diminution or increaſe of its velocity.

Notwithſtanding the caſes which may require bleeding are numerous, yet one general caution is neceſſary, namely, never to take away blood but when it is abſolutely neceſſary; for it is a fluid that may be eaſily taken away, but cannot be ſo eaſily replaced; beſides, the practice of bleeding frequently, or at ſtated times, is very improper, and it diſpoſes the body to become lax, weak, and plethoric. In bleeding, therefore, a due regard muſt always be had to the conſtitution, age, ſtrength, &c. of horſes, and the ſtate or habit of body they are then in.

Although we ought to be ſparing of drawing blood from horſes on trifling occaſions when they may be ſaid to be in health, yet, when caſes occur that do require it, it may not only ſafely, but uſefully, be recommended to take away a greater quantity at once than is generally done: that is, from ſix to eight pounds, which will be about three or four quarts Engliſh meaſure, according to the urgency of the ſymptoms, &c. at the time, ſtrength and age of the horſe conſidered. For as horſes are very ſubject to inflammatory diſorders and thoſe that are of the ſpaſmodic kind, and as bleeding plentifully relaxes the whole ſyſtem in theſe caſes, the taking away a ſmall quantity of blood, about one quart or two pounds, is in fact trifling with the diſeaſe; the horſe is ſaid to have been blooded, and that ſatisfies his owner and the farrier; time is loſt, the diſeaſe acquires ſtrength; it will then be beyond the power of art to mitigate or to conquer it: hence the horſe falls a ſacrifice to timidity and ignorance. It is to be remembered, that inflammatory diſeaſes, particularly when the bowels are affected, make a very rapid progreſs in horſes; and, if they are not overcome at the beginning by bleeding plentifully, a gangrene and mortification in the inteſtines commonly cauſes the death of the horſe in twenty-four or thirty hours.

Purging.

This operation is neceſſary, in horſes that are full and groſs, in ſome diſorders of the ſtomach, liver, &c. but ſhould be directed with caution. Before a purge is given to any horſe, it is neceſſary ſome preparations ſhould be made for it, in order to render the operation more ſafe and efficacious; thus a horſe that is full of fleſh ſhould firſt be bled, and at the ſame time have his diet lowered for a week, eſpecially thoſe that have been pampered for ſale; ſeveral maſhes of ſcalded bran ſhould be previouſly given, in order to open the bowels, and unload them of any indurated excrement, which ſometimes proves an obſtacle to the working of the phyſic, by creating great ſickneſs and griping.

That a horſe is purged with difficulty ſhould be remembered: that the phyſic lies generally twenty-four hours in the guts before it works; and that the tract of bowels it has to paſs through is about thirty yards, all lying horizontally: conſequently reſinous and other improper drugs may, and often do, by their violent irritation, occaſion exceſſive gripings and cold ſweats, ſhave off the very mucus, or lining of the guts, and bring on inflammations, which often terminate in mortifications and death. It is likewiſe remarkable, that the ſtomach and guts of a horſe are but thin, compared to ſome other animals of the ſame bulk, and therefore muſt be more liable to irritation and inflammation.

Horſes who have not the proper benefit of air and exerciſe in proportion to their food, by being kept much in the ſtable, ſhould in ſpring have a mild purge or two after a previous preparation by bleeding, lowering their diet, and ſcalded maſhes. Thoſe horſes who fall off in their ſtomach, whether it proceeds from too full feeding, or engendering crudities and indigeſted matter, ſhould have a mild purge or two. Horſes of a hot temperature will not bear the common aloetic purges; their phyſic therefore ſhould be mild and cooling.

In ſtubborn dry coughs purging is always found very beneficial: but mild mercurials joined with them make them yet more efficacious. Horſes of a watery conſtitution, who are ſubject to ſwelled legs, that run a ſharp briny ichor, cannot have the cauſes removed any other way ſo effectually as by purging. Some hold this miſtaken notion, viz. that, if a proper prepared purge does not work to expectation, the horſe will be injured by it; for, though it does not paſs by ſtool, its operation may be more efficacious as an alterative to purify the blood, and it may paſs by urine or other proper ſecretions.

The firſt purge you give to a horſe ſhould be mild, in order to know his conſtitution. Purging medicines are very ſucceſsfully given in ſmall quantities, mixed with others; and act then as alteratives. If mercurial phyſic be given, great care ſhould be taken that it be well prepared; and warmer clothing and nice circumſpection are then required.

In the morning early, when the horſe has an empty ſtomach, is the proper time to give him a purge: about three or four hours after he has taken it, he ſhould have a feed of ſcalded bran; and a lock or two of hay may be then put into his rack. The ſame day give him a couple more maſhes; but, ſhould he refuſe warm meat, he may be allowed raw bran.

All his water ſhould be milk-warm, and have a handful of bran ſqueezed in it; but, if he refuſes to drink white water, give it him without bran. Early the next morning give him another maſh; but, if he refuſes to eat it, give him as much warm water as he will drink: let him be properly clothed, and rode gently about. This ſhould be done two or three times a-day, unleſs he purges violently; once or twice will then be ſufficient: give him a feed of oats mixed with bran at night.

A horſe ſhould drink plentifully during the working; but, if he will not drink warm water, he muſt be indulged with cold, rather than not drink at all.

I ſhall next inſert ſome general forms of Purges.

Take ſocotorine aloes ten drachms, jalap and ſalt of tartar each two drachms, grated ginger one drachm, and oil of cloves thirty drops; make this into a ball with ſyrup of buckthorn. Or,

Take aloes and cream of tartar each one ounce, jalap,

two drachms, cloves powdered one drachm, ſyrup of buckthorn a ſufficient quantity.

Or the following, which is highly eſteemed: Take aloes from ten drachms to an ounce and a half, myrrh and ginger powdered each half an ounce, ſaffron and oil of anniſeed of each half a drachm.

The following is recommended by Mr. GIBSON: Take ſocotorine aloes ten drachms, myrrh finely powdered half an ounce, ſaffron and freſh jalap in powder of each a drachm; make them into a ſtiff ball with ſyrup of roſes, then add a ſmall ſpoonful of rectified oil of amber.

The ſocotorine aloes ſhould always be preferred to the Barbadoes or plantation aloes, though the latter may be given to robuſt ſtrong horſes; but even then ſhould always be preferred with the ſalt or cream of tartar, which, by opening its parts, prevents its adheſion to the coats of the ſtomach and bowels; from whence horrid gripings, and even death itſelf, has often enſued. This caution is well worth remarking, as many horſes have loſt their lives through a neglect of it.

Half an ounce of Caſtile ſoap may be added to the above when given to a horſe of a groſs conſtitution; and for ſtrong horſes the proportions may be increaſed. When mercurial phyſic is intended, give two drachms of calomel over night, mixed up with half an ounce of diapente and a little honey, and the purging ball the next morning.

The following is a very gentle purge, when it can be afforded, particularly to fine delicate horſes; and, if prepared with the Indian rhubarb, will not be expenſive.

Take of the fineſt ſocotorine aloes one ounce; rhubarb powdered, half an ounce or ſix drachms; ginger, grated, one drachm: and make it into a ball with ſyrup of roſes.

The following purging drink may alſo be given with ſucceſs: Take ſenna, two ounces; infuſe it in a pint of boiling water two hours, with three drachms of ſalt of tartar: pour off, and diſſolve in it four ounces of GLAUBER's ſalts, and two or three of cream of tartar.

This laſt phyſic may be quickened or made ſtronger, by adding an ounce more ſenna, or two drachms of jalap. It is cooling, eaſy, and quick in its operation; and greatly preferable in all inflammatory caſes to any other purge, as it paſſes into the blood, and operates alſo by urine.

If after purging the horſe loſes his appetite, it is neceſſary to give him a warm ſtomach drink made of an infuſion of chamomile flowers, anniſeeds, and ſaffron: or the cordial ball may be given for that purpoſe. If the continuance of the purging be too long, give an ounce of diaſcordium in an *Engliſh* pint of port wine; and repeat it once in twelve hours, if the purging continues. Plenty of gum-arabic water ſhould alſo be given; and, in caſe of violent gripes, fat broth clyſters or tripe liquor ſhould be often thrown up with a hundred drops of laudanum in each.

The following is the method of preparing the ARABIC SOLUTION.

Take of gum-arabic and tragacanth of each four ounces; juniper-berries and carraway-ſeeds of each an ounce; cloves bruiſed half an ounce: ſimmer it gently in a gallon of water till the gums are diſſolved; give a quart at a time in half a pail of water; but, if he will not take it freely this way, give it him in a horn often.

When a purge does not work, but makes the horſe ſwell, and refuſe his food and water, which is ſometimes the effect of bad drugs or catching cold, warm diuretics are the only remedy; of which I would recommend the following:

Take a pint of white wine, one ounce of nitre, mix a drachm of camphor with it, diſſolved in a little rectified ſpirit of wine; afterwards add two drachms of oil of juniper, and the ſame quantity of unrectified oil of amber, and four ounces of honey, or ſyrup of marſh-mallows.

If much phyſic cauſe the horſe to ſwell, do not ſuffer him to be rode about till he has ſome vent; but rather lead him gently in hand till ſome evacuation is obtained.

As it is obſerved that horſes more willingly take ſweet and palatable things than thoſe that are bitter and of an ill taſte, care ſhould be taken that the latter be given in balls, and that their drinks be always contrived to be as little nauſeous as poſſible, and ſweetened either with honey or liquorice. Thoſe that are prepared with groſs powders are by no means ſo agreeable to a horſe as thoſe made by infuſion; as the former often clam the mouth, irritate the membranes about the palate and throat, and frequently occaſion the cough they are intended to prevent.

The ſhape of a ball ſhould be oval, and not larger than a pullet's egg: when the doſe is larger, it ſhould be divided into two; and they ſhould be dipped in oil, that they may the eaſier ſlip down.

Mr. TAPLIN recommends the following cathartic balls, the ingredients of which are differently proportioned ſo as to ſuit different circumſtances in reſpect to conſtitution, ſize, age, and ſtrength.

I. Socotorine aloes one ounce; India rhubarb two drachms; jalap and cream of tartar each one drachm; ginger, in powder, two ſcruples; eſſential oil of cloves and anniſeed, each twenty drops; ſyrup of buckthorn a ſufficient quantity to form the balls.

II. Socotorine aloes ten drachms; rhubarb, jalap, and ginger, each two drachms; cream of tartar three drachms, and ſyrup of buckthorn ſufficient to form the ball.

III. Barbadoes aloes, nine drachms; jalap, Caſtile-ſoap, and cream of tartar, of each two drachms; diagrydium, and ginger in powder, each a drachm; ſyrup of buckthorn to make the ball.

IV. Barbadoes aloes, ten drachms; Caſtile ſoap and jalap in powder, of each half an ounce; cream of tartar and ginger, each two drachms; oil of anniſeed, forty drops; of cloves, twenty drops; which form into a ball with ſyrup of roſes or buckthorn.

CLYSTERS

Are of greater importance in relieving horſes from many

many acute complaints than is generally imagined; and it were to be wiſhed, that, in place of the more expenſive cordial-drenches, &c. which are but too frequently given in moſt of theſe caſes, a ſimple clyſter of warm water, or thin water-gruel, were ſubſtituted in their ſtead; the latter proving of great benefit, whilſt the former too frequently prove hurtful.

Clyſters ſerve not only to evacuate the contents of the inteſtines, but alſo to convey very powerful medicines into the ſyſtem, when perhaps it is not practicable to do it by the mouth: for, although they are only conveyed into the larger inteſtines, and perhaps hardly penetrate into the ſmaller, ſtill they are extremely uſeful, by fomenting as it were the latter, and at the ſame time by ſoftening the hardened excrement that is accumulated in the former, and rendering it ſo ſoft as to be expelled out of the body, by which flatulencies or other offending matters that may be pent up in them are likewiſe expelled. Beſides, by their warmneſs and relaxing powers, they act as a fomentation to the bowels; hence they may be of conſiderable ſervice in removing ſpaſmodic conſtrictions in the bowels, carrying off flatulencies, and in preventing inflammation in the inteſtines, &c. or, by conveying opiates to the parts affected, give ſpeedy relief in cholics, &c. &c.

The uſe of emollient clyſters in fevers is conſiderable. They act by revulſion, and relieve the head when too much affected. Beſides, by throwing in a quantity of diluting liquor into the inteſtines, it not only relaxes and cleanſes them, but may be ſaid to cool the body in general; and at the ſame time a conſiderable portion of the liquid is abſorbed and conveyed into the maſs of blood, by which means it is diluted; and, in particular complaints in the bowels, clyſters give almoſt immediate relief, as the remedies, when judiciouſly preſcribed, paſs immediately to the parts affected, with little or no alteration from the powers of the body.

Nor is the uſe of clyſters confined to medicines only: food and nouriſhment may be conveyed into the ſyſtem this way, when a horſe is unable to ſwallow any thing by the mouth. Horſes have frequently been ſupported for ſeveral days together by nouriſhing clyſters, made of thick water gruel, during violent inflammations or tumours in the throat, till ſuch time as they have been diſcuſſed or ſuppurated. Nor will theſe effects appear ſtrange to thoſe who have an acquaintance with the anatomical ſtructure of the body. For the ſake of thoſe who have not, it may be juſt ſufficient to obſerve, that certain veſſels called lacteals, whoſe mouths open into the inner cavity of the inteſtines, abſorb or drink up the chyle or nouriſhment that is produced from the food, and convey it into the maſs of blood. The ſame proceſs takes place when nouriſhment is conveyed into the inteſtines by the anus or fundament; only the food requires to be ſo far prepared, broken down, and diluted with water, as to render it fit to be abſorbed by the veſſels before-mentioned. It ought always to be obſerved, in adminiſtering clyſters, that the contents of the clyſter be neither too hot nor too cold, as either of theſe extremes will ſurprize the horſe, and cauſe him to eject or throw it out before it has had time to have any effect.—Previous to introducing the clyſter-pipe, the operator, after anointing his hand and arm with oil, butter, or hog's lard, obſerving at the ſame time that the nails of his fingers are ſhort, may introduce it into the rectum, and draw out the hardened dung gradually. In farriery this operation is termed back-racking; and becomes the more neceſſary, as it frequently happens that great quantities of hardened dung are in ſome caſes collected in the rectum, which the horſe cannot void eaſily without this kind of aſſiſtance.

Clyſters ſhould be extremely ſimple in compoſition: they will be eaſily prepared on that account, and as eaſily adminiſtered, provided the operator is furniſhed with a ſuitable inſtrument for the purpoſe. The generality of clyſter-pipes that are uſed are by far too ſmall and too ſhort: although it may appear a kind of paradox, yet it is a fact, that a clyſter-pipe of a larger ſize than the ordinary ones, and of a proper thickneſs, is much eaſier introduced into the anus than one that is conſiderably ſmaller. It is likewiſe obvious, that, when the pipe is too ſhort, it renders clyſters of no uſe, becauſe it cannot convey them ſo far up into the inteſtines as is neceſſary for them to be retained. A ſmall ſhort pipe, of ſix or eight inches long, is not capable of conveying the injection to the end of the rectum, which is about ſixteen or eighteen inches long in a horſe of a middling ſize.

But farther, after the hardened dung is taken out of the rectum by the operation above-mentioned, the bladder being diſtended and full of urine, it cannot exert its contracting power immediately, ſo as to expel its contents; it therefore paſſes up to the empty rectum, and forms as it were a kind of tumour in it. If the pipe is too ſhort, it cannot reach beyond this riſing in the rectum, which forms as it were a declivity back towards the anus; and hence the liquor regurgitates or flows back at the anus as ſoon as it is diſcharged from the pipe.

Another very material objection to theſe inſtruments is the ſmallneſs of the bag or bladder, which is generally proportioned to that of the pipe, and ſeldom contains one quart of liquid; from which circumſtance, very little benefit can be derived from the uſe of them in ſuch large inteſtines as thoſe of a horſe. Dr. BRACKEN obſerves, that "the colon of a horſe ſeems to be three guts; and, by reaſon of the two necks of about half a yard each, is drawn up into many cells or purſes by means of two ligaments, one of which runs along the upper, and the other the under, ſide of it, which, with the aſſiſtance of a valve or flap at its beginning, hinder the excrements either from returning back into the ſmall guts, or falling too ſoon downwards, before the chyle or milky ſubſtance prepared from the food be ſent into its proper veſſels. And, indeed, the cæcum or blind gut, which is the firſt of the three larger guts, ſeems to be ſo contrived in the manner of a valve, to hinder the aliment and chyle from paſſing too ſoon into the colon; for, if the aliment and chyle were not in ſome meaſure hindered in their paſſage through theſe large guts, the body could not be ſufficiently ſupplied with nouriſhment. The firſt of theſe colons is about a yard and a half in length, the ſecond about a yard, and the third, or that part which joins the rectum or arſe-

gut,

gut, near ſix yards in length; ſo that the colon of a horſe fourteen hands high may be ſaid to be nearly eight yards and a half long; and, from it, along the rectum or ſtraight gut to the anus, where the excrements are diſcharged, is not above half a yard; ſo that it is plain, clyſters operate moſtly in the colon; though I muſt ſay they are given in too ſmall quantities; for what ſignifies two quarts of liquor in a gut nine yards long, and four or five inches diameter, in a natural ſtate: but, in the cholic, it is ſo diſtended with flatulencies, that its diameter exceeds ſeven or eight inches, as I have frequently obſerved in thoſe dying of that diſtemper."

Large ſyringes are frequently uſed for the purpoſe of giving clyſters: but, of all the inſtruments ever invented, they ſeem the moſt improper for horſes. The ſharpneſs and ſmallneſs of their pipes are not only a material objection againſt the uſe of them, but they are apt to tear and wound the gut; for, if a horſe ſhould prove reſtleſs, either from pain, as in caſes of the gripes, or from viciouſneſs, the ſyringe and pipe being quite inflexible, in the ſtruggle to throw up the injection the gut may be wounded or hurt, by which a diſcharge of blood and other bad conſequences may follow. But, although there was not the leaſt chance of their hurting the horſe or wounding the gut, yet the force with which they throw up the liquor always cauſes a ſurprize, of courſe a reſiſtance, attended with a vigorous effort to throw it out; which indeed frequently happens before the pipe of the ſyringe is withdrawn, and frequently upon the operator.

The moſt proper inſtrument for giving of clyſters, is a ſimple bag or ox-bladder, which will hold two or three quarts, tied to the end of a wooden pipe about fourteen or fifteen inches long, one inch and a half diameter where the bag is tied, and of a gradual taper to the extremity, where the thickneſs ſhould ſuddenly increaſe, and be rounded off at the point, and be made as ſmooth as poſſible; the perforation or hole through the pipe may be made ſufficiently large, ſo as to admit the end of a common funnel, for pouring in the liquor into the bag. By the flexibility of the bladder at the end of this inſtrument, no danger can happen to the horſe; the clyſter is conveyed ſo far up into the inteſtines that it will be retained; it cauſes no ſurprize, provided the liquor be neither too hot nor too cold, but milk-warm, as no other force is required to throw it up than the holding the bag a little higher than the level of the pipe; by which means the liquor flows gently into the gut, without any ſurprize to the horſe. After uſing the bag, it may be blown full of wind, a cork put into the pipe, and hung up in ſome dry place to prevent it from rotting; by which means it will laſt a conſiderable time.

Clyſters are diſtinguiſhed by different names, which denote the quality of the ingredients of which they are compoſed, as emollient, laxative, diuretic, anodyne, &c. As the more general uſe of clyſters, in the practice of farriery, would be attended with the moſt ſalutary effects, eſpecially in acute diſeaſes, where the ſpeedieſt aſſiſtance is neceſſary, I ſhall here ſubjoin ſome forms of recipes for compoſing them, together with the caſes wherein they may be advantageouſly adminiſtered.

Emollient Clyster.

Two or three quarts of thin water-gruel, ſallad-oil and coarſe ſugar, of each ſix ounces. Diſſolve the ſugar in the water-gruel, then add the ſallad-oil. Give it milk-warm.

Laxative Clyster.

Two or three quarts of thin water-gruel, Glauber's ſalts eight ounces, ſallad-oil ſix ounces. When Glauber's ſalts are not at hand, common ſalts may be uſed inſtead thereof.

There may be a great variety of recipes added for making clyſters, compoſed of the infuſion of different herbs, ſeeds, &c. but the above ingredients are always eaſily got, and they will be found to anſwer all the intentions required under this head, which is to ſoften the hardened excrements, to lubricate the inteſtines, and, by exciting a gentle ſtimulus, promote a free diſcharge of their contents; which, when once obtained, ſeldom fails of giving relief in inflammatory caſes, ſpaſms, &c.

Purging Clysters.

Infuſe two quarts of ſenna in two quarts of boiling water; ſtrain it off; then add of ſyrup of buckthorn and common oil, each four ounces. This clyſter will operate more briſkly than the former, and on that account may be preferred when an immediate or ſpeedy diſcharge is neceſſary.

Anodyne Clyster.

The jelly of ſtarch, or infuſion of linſeed, one pint; liquid laudanum one ounce, or about two table-ſpoonfuls.

When there is reaſon to apprehend inflammation in the bowels, opium may be given in the place of laudanum, from twenty to thirty grains, in proportion to the urgency of the ſymptoms; it ought to be well triturated or rubbed in a mortar, with a little of the liquid, till it has thoroughly diſſolved. The ſmallneſs of the quantity of liquid here recommended, gives it the better chance of being the longer retained, as the good effects to be derived from the opium depend entirely on this circumſtance. This clyſter is proper to be given in violent gripings, attended with purging, in order to blunt the ſharpneſs of the corroding humours; and to allay the pain uſually attending in ſuch caſes. The ſtarch will, in ſome meaſure, ſupply the deficiency of the natural mucus or covering of the inteſtines, which has been carried off by violent purging. It may be repeated if the ſymptoms continue violent, only diminiſhing the quantity of laudanum, or of the opium.

Nourishing Clyster.

Three quarts of thick water gruel. When this kind of clyſters is neceſſary, they may be given four or five times in the day, according as circumſtances may require; they are of much ſervice in caſes where the horſe cannot eat ſufficiently to ſupport him, or ſwallow any thing, from inflammation of the throat, jaws, &c. or in convulſions, attended with a locked jaw, &c.

Diuretic Clyster.

Two ounces of Venice-turpentine and one ounce of Caſtile-ſoap. Diſſolve the ſoap in two quarts of warm water; then add the turpentine, after it has been well beat up with the yolks of two eggs.

This diuretic clyſter is of great uſe in the ſtranguary, and obſtructions in the urinary paſſages; and, as it is immediately applied to the parts affected, it ſeldom fails of giving relief, and has a much better effect when preſcribed in this manner than when given by the mouth: by this laſt way it mixes with the whole maſs of fluids, and may loſe a conſiderable portion of its diuretic quality before it reaches the kidneys; but, by being adminiſtered in the form of a clyſter, it is readily abſorbed by the neighbouring veſſels, and promotes a free diſcharge of urine.

For other forms of clyſters, *ſee* Clyster.

There are a variety of caſes where clyſters may be adminiſtered with great ſucceſs, beſides thoſe already hinted at; as in inflammatory fevers, ſpaſmodic conſtrictions, and cholicy complaints in the bowels; in recent coughs, apoplexy, convulſions, paralytic complaints, or ſwellings of the belly, whether from air pent up in the bowels or from hardened excrements; in caſes where horſes are troubled with worms, as the aſcarides which lodge in the lower part of the inteſtines, or when bot-worms are obſerved ſticking in the anus, or voided with the dung; in very coſtive habits, before laxative or opening medicines are given by the mouth; in wounds which penetrate deep into the muſcular or tendinous parts, or in the belly, &c. in inflammations in the eyes, or when the head ſeems particularly affected; in inflammatory ſwellings on any part of the body; when a horſe cannot ſwallow his food, &c. whether it proceeds from ſpaſm in the muſcles of the throat, inflammations, or ſwellings. Clyſters compoſed of mucilaginous ſubſtances, as ſtarch, linſeed, &c. are of great benefit in violent diarrhœas or looſeneſs, whether it proceeds from a natural diſcharge, or from too ſtrong purging medicines.

Clyſters ſhould be often repeated, till ſuch time as the diſorder for which they are given is either removed or greatly abated. This injunction may be the more readily complied with, as the adminiſtering clyſters to horſes is not attended either with much trouble or diſturbance to them.

Colds.

The reader is referred to the article Colds.

Rowels.

Rowels for horſes anſwer the ſame purpoſe as iſſues in the human body. To introduce them obſerve the following Directions.

Make an inciſion through the ſkin, about three-eighths of an inch long, and ſeparate the ſkin from the fleſh with the finger, or with a blunt horn, all round the orifice, as far as the finger will eaſily reach; then introduce a piece of leather, very thin, ſhaped round, about the ſize of a crown-piece, having a large round hole in the middle of it. Previous to introducing the leather, it ſhould be covered with lint or tow, and dipped into ſome digeſtive ointment; a pledget of tow, dipped in the ſame ointment, ſhould likewiſe be put into the orifice, in order to keep out the cold air: the parts around it ſoon ſwell, which is followed with a plentiful diſcharge, from the orifice, of yellow ſerum or lymph; and, in two or three days at moſt, the diſcharge turns into thick groſs white matter: the rowel is then ſaid to ſuppurate.

The artificial vents act by revulſion or derivation, and hence they become of great uſe in many caſes, as they empty the ſurrounding veſſels by a regular ſlow diſcharge of its contents, and are even of great ſervice when there is a redundancy or fulneſs of humours in general, which may require a gradual diſcharge, in preference to greater evacuations by purging medicines, &c. Rowels ſhould be placed, eſpecially in ſome particular caſes, as near the affected part as poſſible; and, at all times, they ought to have a depending orifice, in order to admit of a free diſcharge of the matter that is contained in them.

The belly, inſide of the thighs, the breaſt, and outſide of the ſhoulders and hips, are the parts where they ought to be inſerted, and where they are found to anſwer beſt; they are ſometimes, but very injudiciouſly, put in between the jaw-bones, under the root of the tongue, where they never come to a proper ſuppuration, on account of the conſtant motion of the parts in eating, &c. neither do they anſwer any good purpoſe from being placed in that ſituation. In ſome diſorders it is found neceſſary to put in ſeveral of them at once, in order to make a ſudden revulſion from the parts affected; but this ſhould be determined by the horſe's age, ſtrength, and circumſtances that require them.

But, though rowels are found very beneficial in ſome caſes, yet, like a number of other operations common to horſes, they ſometimes, by the improper uſe of them, become hurtful to the conſtitution; and, in ſome diſeaſes, they frequently, inſtead of ſuppurating, turn gangrenous. Thus in violent fevers, where they are very improperly applied, they never ſuppurate properly: whether this proceeds from the quickneſs of the pulſe, together with the violent rapidity with which the fluids in general are then carried through the veſſels, or from the violent agitation in which the whole ſyſtem is thrown, it is difficult to determine; but experience confirms the obſervation, when properly attended to. In ſuch caſes, the ſurrounding parts where the rowel is placed ſeldom or never ſwell, as in the ordinary courſe, when they ſuppurate properly, but appear dry, or much in the ſame ſtate as when they were put in; there is little or no diſcharge from the orifice; and the little that does come is thin, ichorous, and bloody. In ſuch caſes, they ought to be taken out immediately, and the parts well fomented with a ſtrong infuſion of chamomile, or an emollient poultice applied, if it can be properly fixed, and frequently repeated; at intervals the parts ought to be bathed with ardent ſpirits, as that of wine, turpentine, &c. covering the parts from the external air; and, provided there is no fever at the time, two or three ounces of Peruvian bark may be given through the day, either made into balls or given in liquid; and this continue till the threatening ſymptoms are removed.

Rowels are of great uſe in carrying off rheums or defluxions

fluxions from the eyes; in great ſwellings of the glands, &c. about the throat and jaws, which threaten a ſuffocation; or when the head ſeems particularly affected, as in the vertigo or ſtaggers, apoplexy, &c. &c. in recent lameneſs; ſwellings of the legs and heels, attended with a diſcharge of thin ichorous matter, &c. in large and ſudden ſwellings in any part of the body; or when extravaſations of the fluids have taken place, from blows, bruiſes, &c. or when a horſe has had a ſevere fall, &c. and in many other caſes, which the practitioner will remember.

SETONS.

Setons are of great uſe in carrying off matter from deep-ſeated tumours or abſceſſes in different parts of the body. They ought at all times to be uſed in preference to making deep inciſions into the muſcular parts, which not only diſfigure horſes, but ſuch deep inciſions are very difficult to heal up in them, on account of the ſituation of ſome of theſe tumours, and the horizontal poſition of the body, which is unfavourable in many caſes for procuring a depending opening in order to carry off the matter, as in tumours in the back, withers, and upper part of the neck immediately behind the ears, which are very common. Beſides the horizontal poſition of the body, the natural reſtleſſneſs and impatience of horſes renders it impracticable to fix proper bandages on thoſe elevated parts; the ſituation of them, likewiſe, will not admit of proper dreſſings being fixed on them with any degree of certainty of their remaining for any length of time; by which means the openings made into ſuch tumours or abſceſſes are frequently left bare, and expoſed to the cold air, &c. hence ſuch openings degenerate into very foul ulcers, and produce a great deal of proud fleſh, and which require to be repeatedly cut away with the knife, as the ſtrongeſt cauſtics that can be applied are not ſufficient to keep it under.

Setons are introduced by long, thin, ſharp-pointed, inſtruments or needles, ſhaped like a dart at the point, and having at the other extremity an eye to receive the end of the cord, which is to be left in the tumour. The ſize of the inſtrument may be determined by that of the tumour, and the thickneſs of the cord which is to follow it, and which at all times ought to be ſmaller than the perforation made by the point of the needle. Every practitioner in farriery ſhould always have a number of theſe needles by him, of different ſizes, that is, from ſix to fourteen or fifteen inches long, a little bended on the flat or under ſide. To apply them in caſes of tumours or abſceſſes, you muſt obſerve the following method.

When the matter is found to fluctuate in the tumour, the needle, armed with a cord at the end, is to be introduced at the upper end of it, and the ſharp point of the inſtrument directed to, and brought out at the under or lowermoſt part of the tumour, including the whole length of it; or, if needful, through the ſound muſcular fleſh on the under part, in order to make a depending orifice for the matter to run freely off; the cord ſhould be dipped in ſome digeſtive ointment, and then tied together at both ends with a thread, in order to prevent its ſlipping out. But if, from the length of the perforation, the cord ſhould not admit of being tied together at the ends, a ſmall button of wood, or ſome ſuch ſubſtance, may be fixed at each end, only, from this circumſtance, the cord will require, when ſhifted, occaſionally to be drawn upwards and downwards; whereas, when the ends of it are tied together, it forms a circle, and may always be ſhifted downwards to the lower orifice. When the matter in the tumour appears to be wholly diſcharged or dried up, and no thickneſs appearing but where the cord is, it may then be cut out, and the orifices ſuffered to heal up.

When the needle for introducing the ſeton is to paſs near to any large blood-veſſels or nerves, in order to prevent the chance of their being wounded, it may be concealed in a canula or caſe, open at both ends; and, after an opening is made at the upper part of the tumour, ſufficient to admit the needle with its caſe, it may then be directed with ſafety to paſs the blood-veſſels, &c. and may then be puſhed forward through the canula, and the oppoſite ſide of the tumour, and, having all the common teguments to perforate, danger will be avoided.

The medicines, and directions to uſe them for various diſorders, being given under the heads of the ſeveral diſorders throughout this work, we ſhall here only give the few following.

Tobacco infuſion. Infuſe two ounces of the ſtrongeſt tobacco, twelve hours, in half a pint of camphorated ſpirits and brandy, equal quantities, ſtirring as often as poſſible. Touch with the infuſion, or apply pledgets of the tobacco.

Camphorated elder ointment. Into half a pound of ointment of elder, ſtir and mix well ſix drachms of camphor finely powdered, moiſten, if needful, with ſpirits: add, when deſired more cooling and repellent, three drachms of ſugar of lead in very fine powder.

Soap liniment. Mix ſoft ſoap, a ſmall quantity of Venice turpentine, fuller's earth, and vinegar or brandy; if neceſſary, add a ſmall quantity of linſeed oil: ſpread on tow.

Cooling repellent white ointment. White wax ſix ounces, melt it in three pounds of oil olive, add by degrees one pound of ceruſe finely powdered: if deſired more repellent, add one ounce of ſugar of lead; rub the ſugar of lead, well powdered, in a ſmall quantity of the oil firſt, then mix.

Ointment for the paſterns of horſes liable to crack in exerciſe: mix hog's-lard and linſeed oil, two parts lard to one of oil; ſtir well into the maſs, French brandy, after the rate of a gill to half a pound. Touch the cracks frequently with brandy.

Legs ſwelled of young horſes, from long ſtanding, or work. Bathe with diſtilled vinegar, to a quart of which may be added two ounces of camphorated ſpirits. Or, a bath for the legs of cold ſpring water, continued ten or twelve minutes: rub thoroughly dry with a linen cloth, ſo gently as to cauſe no heat.

Emollient and diſcutient fotus or bath. Boil wormwood, chamomile flowers, mallows, bay leaves, tanſy, and roſemary, of each ſix handfuls, in a gallon of water, ſlowly, to three quarts, mix the three quarts with water in a ſtrong tub, in which bath the horſe's two legs

legs may be placed as warm as is convenient, and there kept as long as the heat continues. Warm it afreſh for the hind-legs.

Pains in the ſhanks, and ſhins, of racers. Poppies bruiſed, four ounces; lavender, elder-flowers, and chamomile, each three or four handfuls; boil in ſix pints of water, ſtrain off three pints, and add three ounces of camphorated ſpirits: uſe the mixture warm, twice a day, with ſponge or flannel, to the legs and joints, when the horſe comes in from exerciſe, the laſt thing after dreſſing.

Saturnine ſtrengthening embrocation. Beſt diſtilled vinegar, one pint; aqua vegeto made with one pint of water, and three tea ſpoonfuls of GOULARD's Extract of Saturn, two ounces of oil of turpentine: mix. A quantity of this ſhould be kept cloſe corked for ſtable uſe, as it improves by keeping: its ſtrength may be varied by the increaſe or diminution of GOULARD's extract; but I have ever found the preſent form ſufficiently ſtrong, in this intention.

Running thruſh: when this has become inveterate, fetid, and diſcharges much, deterge and heal it with either of the following: Ægyptiacum, half an ounce: brandy and diſtilled vinegar of each one ounce; tincture of myrrh-aloes one ounce, mix. Bathe twice a day, charged with tow dipped therein. OR, quench unſlacked lime in vinegar, ſtrain, and uſe the liquid hot. OR, diſtilled vinegar, oak bark finely powdered, and whites of eggs. Should the diſcharge ſtop very ſuddenly, purge, or give alteratives; indeed, if it be a natural thruſh, no aſtringents can be ſafely uſed, without concomitant internals of the alterant or purgative claſs, for fear of a metaſtaſis, or tranſlation of the humour to ſome other part; a much worſe conſequence than the natural defect.

As the complaints in the eyes of a horſe come frequently under the care of the farrier, we inſert the following inſtructions.

DISEASES of the EYES.

The caſes that moſt frequently occur, requiring medical aid, or admitting of cure, are generally the effects either of colds, or of blows, bites, or other external injuries. In thoſe proceeding immediately from cold, there is perceived an inflammation upon the globe of the eye, and internal ſurrounding parts, as the edges of the eye-lids, &c. inſtead of its former tranſparency, the eye has a thick cloudy appearance upon its outer covering, and is conſtantly diſcharging an acrid ſerum, which in a ſhort time almoſt excoriates the part in its paſſage. The horſe drops his ears, becomes dull and ſluggiſh, is frequently ſhaking his head, as if to ſhake off the ears, and in every action diſcovers pain and diſquietude. In this caſe, after bleeding, the treatment preſcribed in the article COLDS muſt be adopted and perſevered in; and to cool the parts, and allay the irritation occaſioned by the ſcalding ſerum, let the eyes and ſurrounding parts be gently waſhed twice or thrice every day with a ſponge or tow impregnated with the following ſolution:

Sugar of lead one drachm, white vitriol two ſcruples, ſpring water half a pint, brandy or camphorated ſpirits one ounce, or two table ſpoonfuls. If the inflammation ſhould not ſeem likely to abate, but to wear a threatening appearance, the following diuretic medicine muſt be adminiſtered: Caſtile ſoap twelve ounces, yellow roſin and nitre (in powder) each eight ounces, powdered camphire one ounce, and oil of juniper ſix drachms; mixed with a ſufficient quantity of ſyrup or honey. The maſs is to be divided into twelve balls, rolled up in liquorice or anniſeed powder; one of which is to be given every morning, uſing alſo gentle work or moderate exerciſe.

The effects ariſing from blows or bites form different appearances, according to the ſeverity of the injury ſuſtained. Should inflammation and ſwelling proceed from either caſe, bleeding will be neceſſary without delay, and may be repeated at proper intervals till the ſymptoms appear to abate; and let the parts be plentifully embrocated four times a day with the following preparation of GOULARD's cerate:

Extract of ſaturn, three drachms; camphorated ſpirits, one ounce; river or pond water, one pint. The extracts to be firſt mixed with the ſpirits, then the water to be added.

If a large ſwelling, laceration, or wound, attends, after waſhing with the above, apply a warm poultice of bread, milk, and a little of the lotion, ſoftened with a ſmall portion of hog's lard or olive-oil. In caſes of leſs danger, or in remote ſituations were medicines are not to be procured, the following may be uſed as a ſubſtitute.

Beſt white-wine vinegar half a pint, ſpring-water a quarter of a pint, and beſt brandy a wine glaſs, or half a gill.

As to the gutta ſerena, cataract, film, &c. theſe are caſes in which relief is very ſeldom obtained.

The gutta ſerena is a partial or univerſal loſs of ſight, where no palpable defect or fault appears in the eye, except that the pupil is a little more enlarged or contracted. The appearances of this blemiſh are various, as well as the cauſes and effects, ſome of its ſubjects being totally blind, and others barely enabled to diſtinguiſh between light and darkneſs. The ſigns are blackneſs of the pupil, an alteration of the ſize of the eye, and its not contracting or dilating upon a ſudden expoſure to any degree of light. In order to the cure, it is neceſſary to attend to the cauſe, and to apply ſuch remedies as that may indicate: though in truth it is a diſorder in which, from whatever cauſe originating, no great expectation can be formed from medicine, either internally or externally, more particularly from the former, the ſeat of diſeaſe being ſo far out of the reach of medical action. If the defect ſhould be owing to a contraction of or compreſſion upon the optic nerve, very little can be done with any expectation of ſucceſs; and much leſs if it ariſes from a palſy of that or any other neighbouring part.

A cataract is a defect in the cryſtalline humour of the eye, which, becoming opaque, prevents the admiſſion of thoſe rays upon the retina that conſtitute viſion. The diſorder called moon-eyes are only cataracts forming. Theſe in general make their appearance when a horſe is turned five coming ſix; and at which time one eye becomes clouded, the eye-lid being ſwell-

ed, and very often ſhut up; and a thin water generally runs from the diſeaſed eye down the cheek, ſo ſharp as ſometimes to excoriate the ſkin: the veins of the temple, under the eye, and along the noſe, are turgid and full: though it ſometimes happens that the eyes run but little. This diſorder comes and goes till the cataract is ripe; then all pain and running diſappear, and the horſe becomes totally blind, which is generally in about two years. During this time ſome horſes have more frequent returns than others; which continue in ſome a week or more, in others three or four; returning once in two or three months, and they are ſeldom ſo long as five without a relapſe. There is another kind of moon-blindneſs, which is alſo the forerunner of cataracts, where no humour or weeping attends. The eye is never ſhut up or cloſed here, but will now and then look thick and troubled, at which time the horſe ſees nothing diſtinctly; when the eyes appear ſunk and periſhing, the cataracts are longer in coming to maturity; and it is not unuſual, in this caſe, for one eye to eſcape. Theſe caſes generally end in blindneſs of one, if not of both eyes. The moſt promiſing ſigns of recovery are when the attack comes more ſeldom, and their continuance grows ſhorter, and that they leave the corner clear and tranſparent, and the globe plump and full.

In all blemiſhes or defects, where a thickening of ſome one of the coats, membranes, or humours, of the eye, has formed an appearance of a cataract or film, it has been an eſtabliſhed cuſtom among moſt farriers to beſtow a plentiful application of corroſive powders, unguents, and ſolutions, for the purpoſe of obliteration; without reflecting (as Mr. TAPLIN obſerves) upon the abſurdity of endeavouring to deſtroy by corroſion what is abſolutely ſeparated from the ſurface by a variety of membraneous coverings, according to the diſtinct ſeat of diſeaſe; with which it is impoſſible to bring the intended remedy into contact, without firſt deſtroying the intervening or ſurrounding parts by which the inner delicate ſtructure is ſo numerouſly guarded. But, in all diſorders of this ſort, whether moon-eyes, or confirmed cataracts with a weeping, general evacuations with internal alteratives can only take place. Indeed the attempts to cure cataracts have hitherto generally produced only a palliation of the ſymptoms, and ſometimes have proved entirely deſtructive; yet early care, it is ſaid, has in ſome inſtances proved ſucceſsful. To this end rowelling is preſcribed, with bleeding at proper intervals, except where the eyes appear ſunk and periſhing. It is alſo directed, during the violence of the ſymptoms, to obſerve a cooling treatment; alſo to

Give the horſe two ounces of nitre every day, mixed into a ball with honey; and bathe the parts above the eye with verjuice or vinegar wherein roſe-leaves are infuſed, to four ounces of which half a drachm of ſugar of lead may be added. The ſwelling on the lid may afterwards be bathed with a ſponge dipped in equal parts of lime and Hungary water mixed together; and the following cooling phyſic ſhould be given every fourth day, till the eye becomes clear: lenitive electuary and cream of tartar, of each four ounces; GLAUBER's ſalts, three ounces; ſyrup of buckthorn, two ounces.

When the weeping is by theſe means removed, the alterative powders ſhould be given every day, till two or three pounds are taken, and after an interval of three months the ſame courſe ſhould be repeated. This method, it is affirmed, has often been attended with good ſucceſs, where the eyes have been full, and no way periſhed. The haws is a ſwelling and ſponginess that grows in the inner corner of the eyes, ſo large ſometimes as to cover a part of the eye. The operation here is eaſily performed, by cutting part of it away; but the farriers are apt to cut away too much; the wound may be dreſſed with honey of roſes, and, if a fungus or ſpongy fleſh ariſes, it ſhould be ſprinkled with burnt alum, or touched with blue vitriol.

The following preſcriptions are tranſlated from the works of the moſt celebrated practitioners of *Germany*, *Holland*, *France*, *Italy*, &c. together with thoſe uſed by the moſt diſtinguiſhed of our nation.

For a Horſe that has diſordered Sight. Take ſpring and rain water, of each an equal quantity; filter the former through white-brown paper; raſp in a little Caſtile ſoap and double-refined ſugar; afterwards filter it again through another paper; uſe this with a ſoft feather two or three times a day till the eye becomes clear.

Pills to purge the Brain of a Horſe that has ſore Eyes. Take agaric, common aloes, ſenna-leaves, turbith-roots, gentian, and ginger, of each three drachms, all in powder; and with unſalted butter, or ſyrup of buckthorn, make it into a ſufficient number of balls, to be rolled in liquorice powder, for one doſe; give after it a few glaſſes of wine, to make him ſwallow it the better; he ſhould faſt ſix or ſeven hours before and after taking the doſe.

A Powder to diſſipate a Web. Take garden-thyme or wild-thyme, dry one or both of theſe in the ſhade, and make a fine powder; which uſe with a feather to the horſe's eye three or four times a-day.—Remember never to blow this powder into a horſe's eye.

Another Remedy for ſore Eyes. Take celandine-juice, two ounces; white vitriol and Florentine orris-root, powdered, each half an ounce; put the juice and powder into a pint of plantain or ſpring water; beat it all well together till the water is in a froth; then let it ſettle all night, and filter it through white-brown paper; to be uſed with a feather.

Another Powder for Films or *Specks.* Take cryſtal or glaſs, levigated very fine, to which add an equal quantity of ſugar-candy; ſift it well for uſe.

Another Way to remove a Film. Take a piece of lean hung or ſalt beef, dry it in an oven ſo that it may be reduced to powder; do the like to a ſtick of liquorice; take an equal quantity of each, and a third part of burnt roach alum; mix them well, and blow with a quill each morning about a pennyweight into the horſe's eye, drawing the lids together, to keep in the powder; and, in ſo doing every other day for five or ſix days together, the film will vaniſh. This will likewiſe remove the pin and web.

Another. Waſh the eye with wine; then lift up the

the eye-lid, and gently ſtroke the eye with wheat-flour on your thumb. Common ſalt, or ſalt of lead, beaten fine, and put into the eye, is likewiſe proper; or you may waſh the horſe's eye with your ſpittle in the morning faſting, having firſt put a little ſalt in your mouth. A very effectual way is to beat ſal-ammoniac and put into the eye, repeating it every day till the film is gone.

Another, very good. Take ground-ivy, four handfuls; common ſalt, ſugar-candy, white-copperas calcined, each an ounce; ſix new-laid eggs, boiled hard, and the yolks to be taken away; after which beat ſhells and all well together in a marble mortar, with a pint of white-wine; let them infuſe twelve hours, and filter it through paper for uſe.

An Eye-powder. Take common ſlate, calcined; ſnail-ſhells, kali, or ſea-wort, each two ounces; powder all theſe and ſift them through a lawn ſieve; uſe this as before deſcribed, and continue it till the cure is finiſhed.

A cooling Eye-water. Take of ſugar of lead two drachms, white vitriol half an ounce; diſſolve theſe in a pint of ſpring-water; to which may occaſionally be added when the rheum is very large, and inflammation removed, half an ounce of powder of tutty.

A repelling Eye-water. Take two drachms of roſe-buds, infuſe them in half a pint of boiling water; when cold pour off the infuſion, and add to it twenty-five grains of ſugar of lead. With theſe waters let the eye and eye-lid be bathed three or four times a-day, with a clean ſponge that has been dipped therein.

A white Eye-water. Take roach-alum, and white-vitriol, each one ounce; burn them to a white maſs, upon a clean fire-ſhovel; when this is done, powder them and mix them with three pints of boiling water; to this you may add one ounce of lapis calaminaris finely powdered. You may dreſs wounds in the eye with honey of roſes alone, or with a little ſugar of lead mixed with it, and about an eighth part of tincture of myrrh, or the following ointment.

Take an ounce of ointment of tutty, two drachms of honey of roſes, and one ſcruple of burnt white-vitriol; mix theſe cold, and apply them a little warmed with a feather between the eye-lids, morning and evening for ſome time, and waſh his eye at noon with a little warmed milk and a ſponge.

If the horſe is fleſhy, and of a groſs conſtitution, bleeding ſhould be repeated; his diet ſhould be ſcalded bran, avoiding beans, oats, or any thing hard to chew, as this will affect his eye, eſpecially if it is much inflamed; this obſerve ſome days.

Moon-eyed horſes are ſubject to cataracts. When the eye is never ſhut up, or cloſed, and when the eyes appear ſunk and periſhing, it frequently happens that one will be loſt, if not both of them. The moſt promiſing ſigns of recovery are when the attacks come more ſeldom, and they leave the globe plump and full, as well as the corner clear and tranſparent.

During the violence of the ſymptoms, the cooling regimen ſhould be obſerved, and you may give him daily two ounces of nitre made into a ball with honey. The ſwelling of the lid may be bathed with a ſponge dipped in lime and Hungary-water mixed together in equal quantities.

Another Eye-water. Take of the juice of pimpernel and eyebright, of each half a pint; add to them the powder of lapis calaminaris quenched in white-wine, an ounce; as much of the powder of burnt alum; two drachms of the calcine of crab's eyes, and as much of the powdered pith of oyſters; dip a feather in theſe after well ſtirring, and rub it in the eyes.

A Remedy for blood-ſhot Eyes. Take the juice of a lemon, the crumbs of white-bread, bole-ammoniac, and a rotten apple; bruiſe them together, and make of them a cataplaſm or plaiſter: then take the powder of the roots of mallows, with that of a cruſt of brown-bread, and blow it into the eyes; then bind the plaiſter, or rather the poultice, over them; do this three or four times, and you may expect that the blood and rheum will be driven back and diſperſed; but, if it be ſo large that this will not cure it, then bleed the horſe in the temple-veins.

For a Film, Bite, or Blow, in the Eye. Take of white-copperas and verdigris, a quarter of an ounce of each; beat theſe to powder, and dry them well upon a plate or ſpatula; and after that take of it to the quantity of half a drachm; and with a quill blow it into the eye; then cloſe the horſe's eye a quarter of an hour, and after that waſh it with eyebright water; and ſo do till all your powder is waſted; and, when you perceive a brightneſs in your horſe's eye, you may conclude that the malady is baniſhed.

For other receipts, *ſee* WOUNDS, FARCY, GLANDERS, &c.

The following is a liſt of ſuch drugs as are moſt neceſſary in the cure of the various diſorders incident to the horſe, with a brief account of their medicinal virtues.

Aloes. This medicine by its balſamic, corroborative, and lenitive, virtues, abſterges and eliminates the viſcid humours, corrects ſuch as are vitiated, and, corroborating the relaxed tone of the ſtomach, removes the ſpaſms and flatulencies of the *prima via*, and is in general a very powerful and efficacious medicine.

Diaphoretic Antimony is of great ſervice in fevers, peſtilential diſorders, and alſo for all eruptions on the ſkin, as it cauſes perſpiration, and is a great cleanſer and ſweetener of the blood, &c.

Butter of Antimony is a powerful cauſtic, and cauſes an eſchar very quickly, which ſeparates the foul fleſh in a ſhort ſpace of time. It is chiefly uſed for cankered feet.

Aqua Fortis is uſed only as a menſtruum in other preparations, but its nature and quality are much the ſame with the butter of antimony. It is uſed for horſes as a cauſtic, and is of infinite ſervice in looſening a core of rotten fleſh.

Crude Antimony is an excellent alterative in the ſcabies and mange in horſes and cattle.

Alum, when melted with a proper quantity of dragon's-blood, is an excellent ſtyptic.

Anniſeed is a great promoter of the appetite, and affords

relief in phlegmatic and cold diſorders of the ſtomach and inteſtines.

Balſam of Peru. Its qualities are healing, drying, and diſcuſſing, and it is a great ſtrengthener and warmer of the nerves, and is ſerviceable in cuts or green wounds.

Balſam of Sulphur, with Oil of Turpentine, is a medicine much approved for all diſorders of the breaſt, as alſo for ulcerations and obſtructions of the urinary paſſages.

Bay-berries are the fruit of a well known aromatic oily-leaved tree; they are heating, drying, emollient, and reſolvent, and greatly provoke urine.

Benjamin is of a warming, drying, diſcuſſing, diſſolving, and purifying, nature; it reſiſts putrefaction, and is an excellent remedy againſt diſeaſes of the lungs and kidneys.

Yellow Baſilicon is an excellent ointment to incarn wounds, and held in great eſteem.

Bole-ammoniac is, in ſome degree, an aſtringent, in conſequence of which it is uſed in fluxions of humours. It is of a drying nature, and induces cicatrices on wounds.

Bearsfoot has virtues ſimilar to thoſe of black hellebore, and purges the lower belly. It is generally conſidered an infallible preſervative againſt contagious diſtempers among horſes and horned cattle.

Birthwort. The powder of this root, and its extract with ſpirit of wine, are uſed in liniments for cleanſing inveterate, ſordid, and malignant, ulcers.

Cream of Tartar. This medicine is cooling, and gently carthartic.

Calomel. Is a great ſweetener of the blood and juices, and may be given in half-ounce doſes.

Chamomile. This medicine digeſts, relaxes, mollifies, and alleviates pain; is a fine diuretic, and is chiefly uſed in the compoſition of clyſters.

Cloves are of uſe in nervous diſorders among horſes when boiled in wine or ale.

Camphor is of a ſingular efficacy in removing external inflammations, whether of the eyes or otherwiſe.

Carraway-ſeeds are one of the four hot ſeeds; they are ſtomachic.

Cardamoms aid digeſtion, expel wind, and are good in moſt diſorders incident to the head.

Cummin-ſeed is ſerviceable in healing inflammations of the kidneys. It is carminative.

Cinnamon. The quality of cinnamon is ſtimulating and corroborative.

Diapente is a compound of ſeveral ingredients; it is effectual in opening obſtructions of the inteſtines, &c.

Dioſcordium is of an aſtringent quality.

Dragon's-blood is a great drier, an aſtringent, and has a ſharp diuretic virtue.

Diagridium. Its virtues are a briſk cathartic, and a ſtrong diuretic; it is given in ſhort preparations to purge water.

Daucus-ſeed, or *Carrot-ſeed* is an excellent remedy for the ſtrangury in horſes or cattle.

Elecampane. The root of this plant is very warm, opening, and deterſive; it cleanſes the lungs from tartarous and viſcid obſtructions, and opens the urinary ducts; when compounded with brimſtone and hellebore-root, is of great ſervice in cutaneous diſorders.

Euphorbium is chiefly uſed in ſurgery for cleanſing foul ulcers, and exfoliating of carious bones.

Japan Earth is in great eſtimation for ſtopping fluxes of the belly, and is good in catarrhs.

Egyptiacum is an ointment that is applied with ſucceſs to cleanſe foul ulcers, and to keep down fungous fleſh.

Fenugreek-ſeeds are ſoftening, relaxing, and healing, when internally applied; and, when applied to tumours, they ripen, diſcuſs, and digeſt.

Frankincenſe, or *Olibanum.* Applied outwardly, it diſcuſſes catarrhs, incarns hollow ulcers, and brings them to a cicatrix; it conglutinates recent wounds, is an excellent medicine for chilblains, and mitigates malignant ulcers.

Fennel. The root, ſeeds, and leaves, of this herb are good to provoke urine.

Ginger is a root that is brought from the *Weſt Indies;* it is of a very hot and penetrating nature, and, when grated and mixed with any kind of phyſic, will prevent its griping.

Gentian. The root only of this plant is uſed in medicine; it is a ſovereign antidote againſt poiſons, promotes perſpiration, and cauſes digeſtion.

Garlic-root is aperient, diſcuſſive, and provokes urine.

Gum-tragacanth, when diſſolved in any aqueous menſtruum, forms the conſiſtence of ſyrup; it is lenient, moiſtening, and corrects acrimony. About half a dozen drachms of it diſſolved in warm milk, will effectually cure horſes or cattle of ſtaling blood.

Guaiacum is a gum very efficacious in cauſing inſenſible perſpiration.

Honey is infinitely ſerviceable in all diſorders that proceed from phlegm, or a cold conſtitution; and is a great cleanſer of foul ulcers.

Hartſhorn, when calcined, is an excellent medicine among the preparations of powders for contagious diſorders in horſes and cattle; it cheers the ſpirits, and is alſo of great ſervice in violent fevers.

Hellebore. The root of this plant, applied externally, is the predominant ingredient for the cure of ſcorbutic diſorders.

Jalap-root is of itſelf ſufficiently powerful to purge and carry off all ſcirrhous humours.

Juniper-berries expel wind, remove obſtructions, and make a free paſſage for the urine.

Long-pepper promotes digeſtion and expels wind.

Liquorice. The roots, being pectoral, are of great ſervice in the cure of diſordered lungs, &c.

Quick-lime is good to dry up old ſores, &c.

Seed of Flax, or *Linſeed-oil.* The ſeeds are of cooling, ſoftening, and healing, qualities; and the oil, adminiſtered with others, is a fine balſamic medicine, and greatly mitigates the pain of rheumy coughs.

Lunar Cauſtic is an exceeding powerful cautery, and, by frequently touching foul ulcers with it, completes a cure.

Muſtard-ſeeds

Muſtard-ſeeds attenuate viſcid humours, are heating, emollient, diuretic, and moderately moiſtening.

Myrrh, when adminiſtered internally, attenuates, maturates, diſcuſſes, and reſiſts putrefaction. Externally applied, it cleanſes and promotes the cure of wounds and ulcers.

Mercury. White corroſive mercury conſumes warts, and other obſtinate callofities.

Salt of Nitre is good to remove all groſs obſtructions; it moiſtens the body, and relaxes and ſoftens parts ſpaſmodically contracted.

Spirit of Nitre creates appetite, provokes urine, cauſes perſpiration.

Oil of Anniſeed is given with ſucceſs in purgative medicines, to prevent their griping, and alſo expels flatulencies in the inteſtines.

Oil of Caſtor is an excellent purge in all nervous diſorders.

Oil of Turpentine, compounded with other medicines, greatly contributes in extirpating ſwellings and ſtrains, and eaſing wounds and bruiſes.

Oil of Vitriol is extremely cauſtic.

Oil of Peter is of great ſervice, when externally applied, to remove pains in the joints, &c. occaſioned by ſtrains.

Train Oil poſſeſſes the ſame qualities, though in a degree not quite ſo hot.

Oil of Amber, when blended with other ingredients, is a fine medicine for an embrocation; it likewiſe reſtores contracted paralytic torpid limbs.

Onions, roaſted, and applied poultice-wiſe, ſoften hard tumours; and, mixed with a due proportion of ſalt, will cure a burn effectually.

Oxycroceum is an excellent plaiſter to fortify the nerves and muſcles, and relieve pain.

Parſley. The roots of parſley produce the ſame effects as thoſe of fennel.

Peruvian Bark is allowed to be a proper remedy for fevers.

Burgundy Pitch is uſed, with other ingredients, for a hot charge, or ſtrengthening plaiſter.

Powder of Red Precipitate is an excellent eſcarotic, and much uſed for that purpoſe in baſilicon, and other dreſſings.

Matthews's Pill is a powerful opiate.

Quickſilver requires great judgment in adminiſtering; it opens the pores, ſmall veſſels, and ducts of the glands; reſolves obſtructed humours in the remoteſt parts of the body, and performs wonders in cutaneous puſtules, ſcabs, and other eruptions of the ſkin.

Roſemary is hot and drying, and therefore of uſe in all nervous complaints.

Rue is of ſervice in obſtructions in the urethra and bowels, and reſiſts all kinds of poiſons and malignities.

Salt of Vitriol is a medicine cleanſing and very aperitive.

Saffron purges the lungs from viſcid phlegm, is a good pectoral, and exhilarates the animal ſpirits.

Sulphur, if adminiſtered internally, repels groſs humours, and purifies the blood.

Salt-petre, is a great diuretic, and therefore cleanſes the urinary paſſages.

Sal-ammoniac is the moſt noble aperient, attenuant, reſolvent, ſternutatory, diaphoretic, ſudorific, and diuretic, as it preſerves all animal ſubſtances from putrefaction.

Sugar of Lead is an aſtringent ſtyptic.

Salt of Wormwood helps digeſtion, and greatly promotes appetite.

Salt of Tartar is uſed in all diſeaſes which are ſeated in the nerves, as palſies, apoplexies, epilepſies, &c.

Steel, prepared, is a great aſtringent.

Spermaceti is a fine balſamic in moſt inward diſorders.

Syrup of Buckthorn is a violent cathartic, and carries off watery humours.

Spirit of Sal-ammoniac is uſeful in nervous complaints where there is pain.

Storax is a pectoral uſed in coughs, and diſorders of the lungs, &c.

Snake-root is a valuable medicine in raiſing a diaphoreſis, ſo that its warmth occaſions its uſe in all nervous and paralytic diſorders.

Tutty, prepared, dries acrimonious humours of the eyes, cures ulcers on the cornea and eyelids, and carries off fluxes of fiſtulous humours in the eyes.

Turmeric is chiefly uſed to open obſtructions of the inteſtines, and provoke urine.

Barbadoes Tar is recommended to be given in obſtinate tickling coughs; and, when applied outwardly, is of ſervice in burns, ſcalds, and inflammations.

Emetic Tartar operates by ſtool, and is proper in all hypochondriacal melancholy.

Venice Treacle is a ſtrong opiate.

Tincture of Caſtor operates effectually in a lethargy, apoplexy, epilepſy, palſy, vertigo, tremor of the limbs, defluxions on the joints, &c.

Turpentine is a detergent, and therefore of uſe in abſceſſes and ulcerations.

Roman Vitriol is an excellent ſtyptic.

White Vitriol is good to allay the inflammations of the eyes, &c.

Vitriol of Tartar ſtrengthens the inteſtines.

Verdigris keeps down fungous fleſh, and is of ſervice in drying up ulcers.

Vinegar is acid, reſolvent, and refrigerating.

Wormwood creates an appetite, and helps digeſtion.

White of an Egg, mixed with bole-ammoniac, &c. defends and cools any part that may be ſtrained or violently bruiſed.

FARRIER's POUCH, a leather bag in which they carry nippers, drivers, ſhoes for all ſizes of feet, good ſharp nails, and all that is proper for new ſhoeing a horſe that has loſt his ſhoe upon the road.

If you have no farrier with you, you muſt always in your equipage have a farrier's pouch well provided, and a groom that knows how to drive nails.

FATTENING OF HORSES: there are a multitude of things preſcribed for this purpoſe, of which theſe

that

that follow have by experience been found to be the beſt:—

1. Take elecampane, cummin-ſeed, tameriſks, anniſeeds, of each two ounces, and a handful of groundſel; boil all theſe very well with three heads of garlic, cleanſed and ſtamped, in a gallon of ſtrong ale: ſtrain the liquor well, and give the horſe a quart of it lukewarm in a morning, and ſet him up hot. Do this for four or five mornings, and afterwards turn him to graſs, if the weather permit, but if it does not keep him in the houſe; and beſides the aforeſaid drink, take the fine powder of elecampane, and the ſame quantity of cummin-ſeeds powdered, and every time you give him provender, ſprinkle half an ounce of this powder by little and little therein, for fear he ſhould nauſeate it, until it be quite eaten up.

2. Put two ſpoonfuls of diapente in a pint of ſweet wine, brew them together, and give it the horſe for three mornings; for that will take away all infections and ſickneſs from the inward parts: then feed him with provender, at leaſt three times a day, *viz.* after his water in the morning, after his water in the evening, and at nine o'clock at night. And if you perceive that he does not eat his provender well, then change it to another, and let him have moſt of that food he loves beſt.

3. Let the horſe blood; then put half a buſhel of coarſe barley meal into a pail full of water, ſtirring it about for a conſiderable time, then let it ſtand till it ſink to the bottom; pour off the water into another pail for the horſe's ordinary drink, and make him eat the meat that remains at the bottom of the pail three times a day, morning, noon, and night; but if he refuſe, or ſeem unwilling to eat the meal alone, mix it with a little bran; the next day leſſen the quantity of bran, and at laſt give him none at all, for it ſerves only to accuſtom him to eat the meal: or you may mix a ſmall quantity of oats with the meal, and diminiſh it by degrees as before.

It is to be obſerved, that the barley muſt be ground every day as you uſe it, for it quickly grows ſour, after which the horſe will not taſte it.

There are many horſes which may not be fattened, by keeping them to this diet for the ſpace of twenty days.

Barley ground after this manner purges the horſe, and cools his inward parts; but the greateſt efficacy lies in the water, which is impregnated with the moſt nouriſhing ſubſtance of the meal.

When you perceive your horſe to thrive and grow luſty, you may take him off from his diet by degrees, giving him at firſt oats once, and barley-meal twice a day; then oats twice and the meal once, till the horſe is perfectly weaned.

In the mean time you may give him hay, and good ſtraw alſo if you pleaſe, but you muſt not ride him, only walk him ſoftly about half an hour in the middle of the day.

After the horſe has eaten barley-meal eight days, give him the following purgative if you find he ſtands in need of it:—Take an ounce of the fineſt aloes, and half an ounce of agaric, and roots of flower-de-lis, and of *Florence*, of each an ounce; pound all theſe three to powder, and mingle them with a quart of milk, warm as it comes from the cow, if it can conveniently be had, and keep the horſe bridled ſix hours before, and ſix hours after the taking of it, without diſcontinuing his uſual diet.

This purgation will operate effectually, the humours being already prepared, and the body moiſtened, will not occaſion any diſorder or heat, and the horſe will viſibly mend.

After the operation of the purgative is quite ceaſed, the horſe muſt be kept eight days at diet as before.

If horſes of value, that are full of mettle, and of a hot and dry conſtitution, were to be kept to this diet for a convenient ſpace of time, once a year, it would infallibly preſerve them from ſeveral diſtempers; and it is eſpecially uſeful at the end of a campaign, or after a long journey.

If your horſe loſes his appetite, (as it often happens) when he begins to eat, you may tie a chewing-ball to his bitt, renewing it ſo often till he begin to feed heartily on the barley; for thoſe balls not only reſtore loſt appetite, but purify the blood, prevent diſeaſes, and contribute to the fattening of the horſe.

FAULT. *See* DEFAULT.

FAWN. A buck or doe of the firſt year.

FEATHER IN A HORSE'S FOREHEAD, *&c.* is nothing elſe but a turning of the hair, which in ſome reſembles an ear of barley, and in others a kind of eylet-hole.

When it reaches a good way along the upper part of the neck, near the mane, it is a good mark; and if it be on each ſide of the neck, the mark is the better.

So likewiſe if there be in the forehead two or three of theſe eylets, ſeparate from each other, or ſo joined that they form a kind of feather: or if the like mark be upon the ply of a horſe's hind thigh, and upon the back part of it, near to the end of where his dock or rump reaches, it is a very good mark.

FEATHER ALSO UPON A HORSE, is a ſort of natural frizzling of the hair, which in ſome places riſes above the lying hair, and there caſts a figure reſembling the top of an ear of corn.

There are feathers in ſeveral places of a horſe's body, and particularly between the eyes.

Many believe, that when the feather is lower than the eyes, it is a ſign of a weak ſight; but this remark is not always certain.

A *Roman* feather, is a feather upon a horſe's neck, being a row of hair turned back and raiſed, which forms a mark like a back-ſword near the mane.

FEEL. To feel a horſe in the hand, is to obſerve that the will of the horſe is in the hand, that he taſtes the bridle, and has a good *appui* in obeying the bitt.

To feel a horſe upon the haunches, is to obſerve that he plies or bends them, which is contrary to leaning or throwing upon the ſhoulders.

FEET OF HORSES. The care of the *legs* and *feet* forms a moſt important part of ſtable diſcipline. The *legs* muſt be kept perfectly dry, and ſo clean that not a ſpeck of dirt be ſuffered to lodge in any crevice, under the knee, or fetlock, or around the coronet, and withall

preſerved

preſerved cool and free from ſtiffneſs and inflammation; dirt ſuffered to form a lodgement, or wet remaining upon the legs in cold weather, will fret the ſkin, and cauſe cracked heels, mallenders and ſallenders, rat-tails, crown ſcab, and ſuch a train of ſtable plagues, as may baffle the moſt vigorous efforts during a whole winter. From want of care, the beſt flat-legged horſes, whatever may be their condition, will ſoon become greaſed; but I have ſeen round, fleſhy-legged cattle, which could never be preſerved from it, by the utmoſt care of the moſt expert grooms, and which abſolutely could not be kept in the houſe at all with whole legs. The moſt ſovereign of all medical recipes is prevention.—As ſoon as the legs are perceived to become hot, the heels ſcurfy, and the hair begins to ſtare, take a tub or pail of warm ſoap-ſuds, with a piece of ſoap at hand, ſet therein the horſe's leg up to his knee, and with the fingers gently ſcratch off the ſcurf from every part, patiently bathing and ſuppling the leg and heel, as long as the water remains warm. This muſt be done all-fours, and will abate the tenſion and render the legs cool. Wipe perfectly dry with a linen cloth. At night, take the ſame ſteps with chamber-lye, in which hot iron has been quenched. Continue this as long as needful. Touch the cracks and raw places, in the interim, with French brandy, or the tobacco infuſion, or as occaſion may require with camphorated elder, or ſpermaceti ointment, although this latter has been complained of as too ſtiffening. Linſeed oil and brandy, ſhook together till the maſs become white, ſoap liniment, and other forms to be found in the courſe of the work, may alſo be uſeful in this intention. Care ſhould be taken not to irritate, and add to the inflammation of the legs, by harſh, too long continued, or improper rubbing; and if they be tightly bandaged with linen or woollen, which every groom knows how to perform neatly, it will contribute to cleanlineſs, and the general end. Some gallopers are apt to crack the ſkin of their heels in exerciſe, in that caſe, ſupple occaſionally with ſimple ointment, but in general warm water will be a ſufficient preſervative. Pains and foreneſs in the ſhins and ſhank-bones are often the conſequence of exerciſe over hard ground, in very dry ſeaſons, for which I know no better palliative than frequent warm emollient fomentations.

The legs of young horſes are extremely apt to ſwell upon their firſt ſtanding in the ſtable, and particularly after a journey; not however ſo much as uſual, if they have the benefit of a looſe ſtable. Soak the legs when cold, and not in a ſtate of perſpiration, up to the knee, patiently and thoroughly in chamber-lye heated with the poker, adding a handful of ſalt, if thought proper, twice a day. Bandage with linen if neceſſary. Worked horſes, with inflamed and ſwelled legs, battered feet, windgalls on their paſterns and hocks (for in fact bog-ſpavins, or as the farriers chuſe to call them, blood-ſpavins, are nothing more than wind-galls, or more properly jelly-bags) and contracted, or ſtarting ſinews, ſhould be fomented and embrocated according to the neceſſity of the caſe. In contractions of the ſinews, and hardneſs of the joints, of courſe reſtringents are forbid. Warm diſcutient fomentations are required, and the moſt efficacious method is that before recommended, of ſetting the leg into the liquid, as high as the knee. In caſe of ſtrained ſinews, cauſe the accuſtomed tenſion and inflammation to ſubſide by the uſe of the above fomentations, if poſſible, previous to the exhibition of aſtringents. Or uſe the fomentation in the morning, and the reſtringent embrocation at night, agreeable to diſcretion. Rub the ſaturnine or ſtrengthening embrocation, ſtrong or mild according to the demand, well, and for a long time, into the paſtern joints, along the back ſinews, and under the knees and hocks. It may be uſed either cold, or blood-warm, and about a tea-cup full, if ſtrong, ſuffices for a leg. Hunters, after a hard chaſe, would be infinitely benefited by ſuch treatment, the moſt ſcrupulous and minute care being previouſly had to free their legs and paſterns from thorns, and ſmall prickles, which they may have caught.

With a thorough groom, the *feet* of his horſe are objects of conſtant careful inſpection; theſe ſhould be well cleanſed beneath the ſhoe with the pecker, from all ſmall ſtones or gravel, at every return from abroad. The ſhoes muſt be examined, that their ends do not preſs into the cruſt, and that the nails be faſt; otherwiſe inſtant application muſt be made to the farrier. Horſes ought by no means to remain in old ſhoes, until the toe is worn away, or the webs become ſo thin that there is a danger of their breaking, unleſs in caſe of brittle hoofs, when it is an object to ſhoe as ſeldom as poſſible. Upon the average, good ſhoes will wear near a month. Steeling the toes is in general a uſeful practice, but leſs neceſſary when the beſt iron is made uſe of.

The feet of horſes are liable to the following complaints, *viz.*

Windgalls, improperly ſo called, are encyſted tumours, or bags filled with a gelatinous fluid or jelly, which being preſſed upon the tendons by over-weight or exertion, ſtagnates between the joints, and forms for itſelf thoſe cyſts or bags. Their ſituation upon the paſtern-joints is well known. Some horſes are very little ſubject to them, even if hard-worked; others will have them before they have done any work at all. If not too large, and they feel elaſtic and diſappear on reſt, they do not render the horſe unſound; but if large, and ſoft to the touch, they become exceeding painful, and the horſe ſoon grows lame. The only radical cure is exciſion.

The *ring-bone* is a hard, or bony excreſcence, upon the coronet, which ſometimes almoſt ſurrounds the top of the hoof, occaſioned, perhaps, by the iron lock, which has faſtened a clog or fetter; it alſo may proceed from no viſible cauſe, and is then ſuppoſed to be hereditary; horſes ſuppoſed to be cured, never ſtanding ſound in work.

A quitter, or *horny quitter*, or whitlow, is alſo ſituated on the coronet, or between hair and hoof. Thoſe deeply ſeated, are no otherwiſe curable, than with the loſs of part of the hoof, whence a ſeam, or apparent partition, up above the heel, called a *falſe quarter*. In this

this latter caſe, the ſoundneſs of the horſe can ſcarce ever be depended on, and he is liable to drop down ſuddenly on his way.

The *ſand-crack* is a ſmall cleft on the external ſurface of the hoof. No horſe ought to work a ſingle day with one, becauſe if neglected, or aggravated by work, the crack may enlarge, and end in a quittor, and falſe quarter.

Of the *founder* in feet, cheſt, or body, the ſymptoms are ſo well known, as to need no deſcription. Progreſſion ſeems univerſally impeded. The horſe bears upon his heels, and inclines backward. Few recover, even if the diſeaſe be ſudden and acute.

Running-thruſhes are a fœtid diſcharge from the frog, the aperture of which, in conſequence, appears moiſt, the horn perhaps decayed. *See* RUNNING THRUSHES.

Corns, upon horſes, bear no analogy with thoſe upon the human feet; indeed the term is a miſnomer. There are ſtill callous, horny excreſcences about horſes feet, ſimilar enough, in all reſpects, to human corns, but they are not ſo diſtinguiſhed. The ailment, in queſtion, is called by the French *bleime*, and is, properly, a bruiſed ſpot or ſpeck upon the ſole of the heel, wearing either a red and bloodſhot, or black appearance, according as it is recent, or otherwiſe, as we obſerve of the human nail. Its moſt common origin is from bad ſhoeing, and is curable by the contrary.

LA FOSSE, ſo attached to ſub diviſions, has improved upon SOLLEYSEL, by making five inſtead of three ſpecies of *bleime*. In fact there are two, the natural and accidental; the one occaſioned by compreſſion of the hoof itſelf, in bad feet, with wiry heels and ſcarce any binders: the other by that of the ſhoe, or the intruſion of gravel, or ſmall ſtones under it. The preventive remedy is the new ſtyle of ſhoeing. If the bruiſe appear dry, with no tendency to ſuppuration, extirpate it by degrees with the knife, or rub in frequently ſome ſpirituous application, and nature will in time outgrow the blemiſh; turpentine and camphorated ſpirits mixed: ſhould the horſe travel tender, a light bar-ſhoe. In caſe of ſuppuration, make a ſmall opening for the matter, and ſtop with pledgets laid one over the other, dipped in the proper digeſtive, warm. In narrow heels, cut away the horn which preſſes upon the *bleime*.

The *feet*, in general, may be divided into the extremes of hard and ſoft, both of which are too frequently met with. For too hard feet there is no remedy, except their conſtantly running abroad, and then a fortnight's work upon the road will render them ſo feveriſh and painful, that your horſe will be crippled; in ſhort, have the appearance of an incipient founder. Over-ſtrong and hard hoofs are ſaid to occaſion lameneſs, by compreſſing the internal ſtructure of the foot. Their appearance is uſually high and deep, ſometimes like aſs-hoofs, very hollow, with ſcarce any frog; ſometimes much contracted a-top by the coronary rings; at others, deep, thick, and clubbed, and the horſe, though ſound, goes in a fumbling way. Soft feet, and low tender heels, may do great ſervice throughout, with bar-ſhoes, and conſtant attention. Bred hacks are apt to have the feet too ſmall; and often you will find horſes, with feet of the right black flint colour, and to all appearance unexceptionable, and yet they will ſtand no ſervice on the road.

Gravelling. The intruſion of gravel into the feet, chiefly through the nail-holes; one of the many ill conſequences of the common method of ſhoeing, according to which the ſhoes are hollow, and apt to admit and retain the gravel, and the ſole pared ſo thin, that it eaſily penetrates. The horſe halts and deſires to go upon his toes, and the hoof is inflamed; but as other accidents, ſuch for inſtance as a clumſy ſhoe ſetting hard upon the heel, may occaſion ſimilar ſigns, ſuffer not the ſoal to be cut away raſhly, under the idea of ſearching for gravel: but ſhould there really be gravel, it muſt needs be drawn out by manual operation, on account of the ſpiral form of the hoof, which occaſions any ſubſtance admitted to work upwards towards the coronet; whence a quittor may ariſe. This ſhews very clearly the folly of the old practice of ſtopping up a gravelled foot by night, and ſuffering the horſe to be travelled on. Having by moderate pinching, found the offending matter, get it all out as clean as poſſible with the drawing knife. Your ſucceſs will be known by the diſappearance of the blackneſs; warm and deterge well with warm beer, in which is melted ſtrong ſoap and ſalt. Leave the hole rough, and hollowed, larger internally than at the orifice, to the end, that it may better contain the application. Charge as uſual. The gravel being all eradicated at a certainty (but by no means elſe) burning oil of turpentine may be dropped in; afterwards Burgundy pitch, or roſin.

The above method being ineffectual to diſlodge the gravel, which may have penetrated deep, and laid long enough to rot the coffin-bone; enlarge the wound, cut away the rotten fleſh, and dry and cleanſe the bone with a cautery, pointed ſugar-loaf form, as recommended by BRACKEN. Dreſs the bone once or twice a day with doſſils of lint, dipped in tincture of myrrh-aloes half an ounce; tincture of euphorbium, two drachms. Mix. Cover with green, or precipitate ointment. Poultice the whole foot, if neceſſary. This method is leſs painful, and more effectual, than coring out the gravel with ſublimate.

Bruiſed Fruſh. This happens to fleſhy frogs, or in running thruſhes. Poultice with ſtale beer grounds, &c. uſe the knife judiciouſly. Detergents, repellents, ſlyptics, as before.

Retrait, Cloying, or Pricking with Nail, or Stub. The two former are old terms. Retrait is when a horſe is pricked by the ſmith, but the error being perceived, the nail is inſtantly withdrawn. A horſe was ſaid to be cloyed, when the whole nail was driven into the quick, and clenched. This latter caſe, it may be eaſily conceived, would not remain long unattended to; and in a retrait, although the whole of the nail ſhould have been withdrawn, a tender-footed horſe may go a little lame, and ſuch accidents ſhould always be acknowledged by the ſmith, who may be by no means in fault. Let the horſe ſtand in the ſtable ſome days without ſhoes, pare the wounded ſide, and waſh the hoof with urine, and if any apparent wound, uſe the ſpirituous application.

Any

Any nail, ſtub, or thorn, having been extracted, to effect which no time ought ever to be loſt, waſh, dreſs, and ſtop. Tar and turpentine are frequently uſed. If from pain and diſcharge of matter ſome remnant may be ſuſpected to remain behind, pare as thin as poſſible, and introduce a bit of ſponge tent, to enlarge the wound, and give room for the extraction of the remnant, with a ſmall pair of forceps, or encourage it to come away by digeſtion: ſhould this proceeding be ineffectual, and the lameneſs continue, with a ſanious and fetid diſcharge, uſe your drawing knife cautiouſly, and examine the bottom of the wound.

Bartlet ſays, if a nail be ſo driven as to wound the tendon, the foal muſt be drawn, on account of the gleet which will enſue. He ſays farther, that ſhould the joint of the foot be penetrated, or a nail paſs up to the nut-bone, the caſe is incurable. It is curious to remark the old applications for drawing out ſtubs, *&c.* the ſagacious preſcribers of which really thought, or ſeemed to think, their medicaments endowed with the mechanical powers of forceps, inſtead of merely digeſtive ones; as ſome old goodies, even now a-days, bleſs out thorns.

Quittor and Falſe Quarter: cauſe and conſequence. A quittor, formerly called by our farriers a quittor-bone, or horny quittor, is the *javart* of the French ſchool. It is a hard round lump, or excreſcence upon the coronet, between hair and hoof, on one or the other, but uſually the inſide quarter of the foot. Its cauſe is the aſcent of a foreign body, or morbid material from the bottom, or ſoal upward; as a nail, a quantity of gravel, or the extravaſated matter of a bruiſe or corn, which could find no vent below; theſe forcing their way between the quarter and the coffin bone, work a paſſage to the coronet, by deſtroying the foliated ſubſtance, and corrupting all the adjacent parts. This diſeaſe may be a conſiderable time in breeding, to the exquiſite torture of the animal, whoſe wincing, as well as the lump and inflammation upon his coronet, are perhaps totally neglected by his maſter, until ſuppuration, and an ulcer of the moſt ſtubborn and dangerous kind enſue. The *thorough* quittor, of all maladies to which the horſe's foot is liable, is the moſt hopeleſs, if we except the founder; which makes it neceſſary to caution the reader againſt thoſe ſuperficial and palliative methods ſo confidently recommended. Any thing ſhort of the moſt radical operation in this caſe, will endanger the ſpeedy and total loſs of the hoof, for which reaſon no cure can poſſibly be made without the ill conſequence of a *Falſe Quarter*, or ſeam down the hoof, from neceſſary loſs of ſubſtance. A horſe with this latter defect, may be very ſound in ſlow draft, but never could be depended upon to ride. They are apt to drop down ſuddenly, as if ſhot. A ſuperficial quittor, originating above, in which the cartilage is untouched, or a mere wound or ulcer in the coronet, is curable by the method already deſcribed.

St. Bel compares the horny quittor to the third ſpecies of whitlow on the human nail. Bating a little flouriſh, that author is much ſuperior to any in our language, on the cure of this diſeaſe; we ſhall therefore follow him. Probe the ulcer, carefully following the direction of the fiſtulas, to diſcover whether the cartilage be affected; but if it ſhould be impoſſible to judge exactly of the irregular bottoms of the wound, it will be neceſſary to proceed to the following operations:—Reduce the horſe's ſolid food, and give maſhes of bran and ground corn, with plenty of white water. Pare the hoof, raſp the quarter thin near the ſeat of the operation, and wrap the foot up in an emollient poultice two or three days. Having caſt the horſe plenty of litter, and made a ligature round the paſtern, to prevent a flux of blood, an inciſion is to be made with a biſtory or knife, parallel with the coronet, and long enough to diſcover the cartilage in all its extent. Cut away as much of the upper part of the wall as neceſſary, but preſerve the lower part of the quarter and heel, as a ſupport, if poſſible; then with the inſtrument called a ſage-leaf (from its form) having a blunt back, and being ſlightly bent, cut away the cartilage gradually at three or four different attempts. In paſſing the inſtrument behind the cartilage, which covers the principal blood-veſſels of the foot, as well as the capſular ligament of its articulation with the bone of the coronet, the operator muſt uſe the utmoſt caution, ſince if he make an accidental opening or breach in thoſe, the horſe is lamed for ever. Scrape away lightly with the knife, the remaining fragments of the root of the cartilage, obſerving to fix the inſtrument on a ſolid part, and gently bearing from within outward, to avoid opening the adjoining capſular ligament. When all the cartilage is cleared away, examine the ſtate of the bone of the foot; if carious, remove the faulty part, and fire, in order to exfoliation. Search the wound carefully to the bottom, to aſcertain whether there be any remaining ſinus or fiſtula; and the operation completed, give the firſt dreſſing, by applying to the bottom of the wound ſmall pledgets, ſoaked in a mixture of brandy, vinegar, and turpentine. The dreſſings muſt make an equal but ſufficient compreſſion on all the ſurface, and may be finiſhed by laying over the wound, and round the coronet, large pledgets, to avoid compreſſing the part. The bandage conſiſts of a piece of linen, almoſt ſquare, and big enough to go round the paſtern and the foot, with a roller three ells in length, and two inches broad; lead to the ſtable, and then take off the ligature from the paſtern. Bleed. Febrifuge diet.

The firſt dreſſing muſt remain a week, and then the wound muſt not be probed for fear of a hemorrhage: The ſecond, five days, when ſuppuration will have taken place, unleſs the wound has been too ſtrongly compreſſed: dreſs as at firſt. In a few days the third dreſſing muſt come off, and if any black ſpots appear on the ſurface, they commonly indicate that there are yet relics of the cartilage; if ſo remove them. Dreſs every other day with the ſame digeſtive, the cauterized parts excepted, on which ſmall pledgets, dipped in tincture of myrrh-aloes, are to be applied. The exfoliation may happen in two weeks, or a month, according to the age and conſtitution.

When the eſchar has fallen off, the wound ſoon fills up; but ſhould any particle of the cartilage or bone remain, and the exfoliation have been imperfect, freſh

fiſtulæ would enſue, and occaſion the neceſſity of a new operation Probe the black ſpots, and if needful introduce a ſufficiently ſolid tent, ſoaked in the above-named tincture, and lightly duſted over with powdered vitriol, or red precipitate, in order to facilitate the deſired exfoliation, and conſume part of the fleſh covering it. When once the wound is ſound to the bottom, all danger is at an end, and the trouble is amply recompenſed. Run at graſs previous to work.

Groggineſs is that ſtiffneſs ariſing from battering of the hoofs on hard ground, or ſwelling of the legs, and contraction of the ſinews. A horſe bearing all upon his heels in his trot, is ſtyled groggy, and the defect is generally incurable. *Surbating* is derived from the *Sobattitura* of the old Italian writers, and means beating of the foot, which ends in a founder. Sudden accidental ſurbating, or compreſſion by the ſhoe, will be remedied by timely ſtable attention.

The *Foot-founder* is an obſtruction, or condenſation of the humours; and is either acute and from ſudden accident, or the conſequence of a long ſeries of prediſpoſing cauſes, many of which have already been noticed. A ſudden foot-founder may be occaſioned by ſuppreſſed perſpiration, or it may aſſociate with the body-founder, or it may ariſe from ſtanding conſtantly tied up in a narrow ſtall. It is generally in both feet, either before or behind, ſometimes in all four. There is great inflammation in the parts, and ſwellings of the veins in the legs; and in the acute founder, a ſymptomatic fever attends. The acute and chronic have been formerly, and by no means improperly diſtinguiſhed, as the wet and dry founder. By the ſtraining of the muſcles of the loins, in order to favour the pained feet, ſome farriers have ſuppoſed the diſeaſe to be in the loins; however, the ſymptoms of founder, are too obvious to be miſtaken. GERVASE MARKHAM very aptly compared the ſenſation of the horſe from the foundered foot, to the pricking and ſhooting experienced by the human animal, from obſtructed blood in the foot, when ſaid to be aſleep: but the old farriers made a dreadful miſtake in gartering up the leg in this caſe, which muſt neceſſarily increaſe the obſtruction, and redouble the tortures of the afflicted beaſt; in ſhort, the number of ſimilar inſtances, independent of any other conſideration, ought to be an eternal bar to confiding the medical or ſurgical care of animals to merely mechanical hands.

All that can be done in the ſtable is as follows; as ſoon as convenient after which, turn the horſe off, for ſix months at leaſt, upon ſalt paſtures in preference, but at any rate, where ſhelter may be had, and where feed is not difficult to be come at, or the foundered creature may be ſtarved either for want, or from cold; cut the toe until the blood come, and let the hoof bleed awhile; then with the drawing knife make a number of vertical inciſions, through the whole foot, from under the coronet almoſt to the toe, nearly or quite to the quick, without even fearing to touch the cartilages: the feet may be wrapped in emollient poultices a few days, afterwards charge with tar, and powdered olibanum; or pitch and roſin.

In an acute founder, bleed; allow an opening diet, with ſaline phyſic, and nitre and clyſters, as in fever and motten-greaſe. Pare down the cruſt, and thin the ſoal. Soak the feet and legs thoroughly in warm water, in which bran has been ſcalded; and afterwards gently rub dry with cloths. Leave the feet all night in poultices of mealy potatoes and ſcalded bran, mixed up with oil of turpentine, which may be continued three nights. My reaſon for adviſing potatoes, is becauſe I find they retain the heat much longer than any of the uſual articles. Prepare the fotus, (with or without ſpirits, or ſal ammoniac) or bath for the legs and feet, in which ſteep them well, keeping the liquor to a conſtant convenient heat, full half an hour; giving the legs afterwards long continued gentle frictions. Stop the feet with pledgets of tow dipped in the warm mixture of turpentine, linſeed oil, and camphorated ſpirits; and bind the hoofs round with flannel dipped in the ſame mixture. Theſe meaſures muſt be perſevered in ſtrictly three times a day, until the condenſed and ſtagnated humours are rendered ſufficiently fluid for circulation, when the overſtretched veſſels being diſburthened of their ſuperfluous contents, may be reſtored to their proper tone by reſtringent applications. Walking exerciſe in the mean time will be beneficial, but it muſt be in a dry and warm place, and the greateſt care taken that the feet be not wetted, and the horſe ſhould be led, not ridden. When the inflammation ſhall have ſubſided, and the proper feeling of the feet have returned, meaſures directly oppoſite to the foregoing, muſt be adopted. Waſh the feet in urine and vinegar, firſt blood-warm, afterwards cold; bathe the legs with the reſtringent embrocation, lead abroad daily, and prepare by degrees for the only effectual reſtoratives, graſs, and the dew of heaven. Theſe meaſures failing, recourſe muſt be had to the operation as in the chronic caſe. The old farriers, and ST. BEL after them, remarked that a foundered horſe, by way of eaſing the tenſion and pain in his legs and feet, would place himſelf upon his back. Would it not promote the reflux of the ſtagnant humours to continue the horſe in that poſture half an hour a day, upon a ſoft bed, extending and faſtening up his four legs, in ſuch ſort, that the ligature did not impede the courſe of the blood?

It has been the general practice of farriers, to pare the ſole of the foundered foot thin, and charge it with pitch and tallow, or ſome ſuch combuſtibles, boiling hot, which appeared to ſome to confirm the founder. A foundered and feveriſh foot is ſometimes ſoaked an hour in a cold bath, in which have been infuſed the moſt powerful repellents and aſtringents. This practice has been derived from ancient authority, and is preſcribed by PETRUS CRESCENTIUS, and others, but that, and even the conſideration that ſuch method has ever ſince prevailed in the continental ſchools, is no abſolute proof of its rectitude.

When from any accident, the whole hoof ſhall become looſe, ſo as to indicate an entire parting from the bone, prepare a pliable leathern boot, with a ſtrong ſole, fitted to the foot, to be laced around the paſtern. The boot to be bolſtered and ſtopped with ſoft flax or tow, that the horſe may tread as eaſy as poſſible, and the ſtopping

ping to be daily renewed. Dreſs with wound ointment, in which is mixed myrrh, maſtich, and olibanum, very finely powdered. In caſe of fungus; precipitate, ſublimate water, &c. Should the coffin be ſound, a good new hoof will be produced; but it muſt be noted, the old hoof will fall ſpontaneouſly, and ought by no means to be removed by violence, or the knife; unleſs indeed where it may compreſs the new.

FELDFARES,

The Manner of taking them by Water Bird-lime.

Take your gun about *Michalmas*, or when the cold weather begins to come in, and kill ſome feldfares, then take one or two of them, and faſten to the top of a tree, in ſuch a manner, that they may ſeem to be alive. When you have done this, prepare two or three hundred twigs, take a good birchen bough, and therein place your twigs; having firſt cut off all the ſmall twigs, ſet a feldfare upon the top of the bough, making it faſt, and plant this bough where the feldfares reſort in a morning to feed; for they keep a conſtant place to feed in, till there is no more food for them left.

By this means others flying near will quickly eſpy the top bird, and fly in whole flocks, or a great number to him.

FERME A FERME; a word peculiar to the menage ſchools, ſignifying in the ſame place, without ſtirring or parting.

You muſt raiſe that horſe *ferme a ferme*. This horſe leaps upon *firma a firma*, and works well at caprioles.

FENCE MONTH, the month wherein deer begin to fawn, during which it is unlawful to hunt in the foreſt. It begins *June* the 19th, and continues to *July* the 19th.

There are alſo certain fence or defence months, or ſeaſons for fiſh, as well as wild beaſts, as appears by WEST, 2 G. 3. in theſe words: "all waters where ſalmon are taken, ſhall be in defence from taking any ſalmons from the Nativity of our Lord, unto St. *Martin*'s day: likewiſe, that young ſalmons ſhall not be taken or deſtroyed by nets, &c. from the midſt of *April*, to the Nativity of St. *John* Baptiſt."

FERRET, is a creature that is bred naturally in *England*, but not in *France*, *Germany*, *Italy*, and *Spain*; they are tamed for the uſe of thoſe who keep warrens, and others.

The body of this animal is longer than is proportionable; their colour is variable, ſometimes black and white upon the belly; but moſt commonly of a yellowiſh ſandy colour, like wool dyed in urine.

The head is ſomething like that of a mouſe, and therefore into what hole ſoever ſhe can put it, all the body will eaſily follow after.

The eyes are ſmall, but fiery, like red hot iron, and therefore ſhe ſees moſt clearly in the dark.

Her voice is a whining cry without changing of it: ſhe hath only two teeth in her nether chap, ſtanding out, and not joined and growing together.

The genital of the male is of a bony ſubſtance, and therefore it always ſtandeth ſtiff, and is not leſſer at one time than another.

The pleaſure of the ſenſe of copulation, is not in the genital part, but in the muſcles, tunicles, and nerves, wherein the ſaid genital runs.

When they are in copulation, the female lieth down, or bendeth her knees, and continually crieth like a cat, either becauſe the male claweth her with his nails, or by reaſon of the roughneſs of his genital.

The ferret uſually brings forth ſeven or eight at a time, carrying them in her belly for forty days: the young ones are blind for thirty days after they are littered, and they may be uſed for procreation, as their dam is, within forty days after they can ſee.

When they have been tamed, they are nouriſhed with milk or barley bread, and they can faſt a very long time.

When they walk they contract their long back, and make it ſtand upright in the middle, round like a bowl: when they are touched, they ſmell like a martel, and they ſleep very much.

The ferret is a bold audacious animal, an enemy to all others but his own kind; drinking and ſucking in the blood of the beaſt it biteth, but eateth not the fleſh.

When the warrener has occaſion to uſe his ferret, he firſt makes a noiſe in the warren to frighten the conies who are abroad into their burrows, and then he pitches his nets; after that he puts the ferret into the earth, having muzzled her mouth, ſo that ſhe may not ſeize but only frighten the conies out of their burrows, who are afterwards driven by the dogs into the nets or hays, planted for them.

FETLOCK, is a tuft of hair as big as the hair of the mane, that grows behind the paſtern joint of many horſes; horſes of low ſize have ſcarce any ſuch tuft.

Some coach-horſes have large fetlocks; and others have ſo much hair upon theirs, that if the coachman does not take care to keep them clean and tight, they will be ſubject to the watery ſores called *the waters*.

FEVERS, (in Farriery.) Horſes are very ſubject to fevers, from a great variety of cauſes, and care ſhould be taken as ſoon as the creature is ſeized, to attempt the cure.

When a horſe is ſeized with a fever, he will be remarkably reſtleſs, ranging from one end of the rack to the other; his flanks work; his eyes appear red and inflamed, his tongue parched and dry, his breath hot, and of a ſtrong ſmell; he is often ſmelling to the ground, loſes his appetite, and though he will take the hay into his mouth, does not chew it; his whole body is hotter than ordinary, but not parched; he dungs often, little at a time, uſually hard, and in ſmall pieces. His urine is high coloured, and he generally ſtales with pain and difficulty: he is always craving for water, and drinks often, but very little at a time; and his pulſe is much quicker than common.

Whenever a fever is perceived, the firſt part of the cure is bleeding, and the quantity, if the horſe is ſtrong, and in good condition, ſhould amount to two or three quarts. When this has been done, give him four times a day a pint of the following infuſion: Take

of baum, ſage, and chamomile-flowers, of each a handful; of liquorice-root, ſliced, an ounce; and of nitre, three ounces; pour upon theſe ingredients two quarts of boiling water, and when cool, ſtrain it off; ſqueeze into it the juice of three lemons, and ſweeten it with honey.

The horſe ſhould eat nothing but ſcalded bran, given him in ſmall quantities; but if he refuſes this, let him have dry bran ſprinkled with water, and let a little hay be put into his rack, as a ſmall quantity of it will not be prejudicial, and a horſe will often eat hay, when he will not touch any thing elſe. His water ſhould be a little warm, given often, but in ſmall quantities; and his clothing moderate, too much heat being pernicious in a fever.

This method, with good nurſing, will often prove ſufficient to reſtore the horſe to health; but if he refuſes his meat, more blood ſhould be taken from him, and the drink continued; if his dung be hard and knotty, the following clyſter ſhould be given: Take of marſhmallows, two handfuls; of chamomile flowers, one handful; and of fennel ſeeds, one ounce: boil the whole in three quarts of water, till one quart is waſted; then ſtrain off the liquor, and add to it four ounces of treacle, and a pint of common oil.

This clyſter ſhould be given every other day; and the intermediate day, the following ſhould be given: Take of cream of tartar, and of GLAUBER'S ſalts, of each four ounces; diſſolve them in barley-water, and add one ounce of lenitive electuary.

By purſuing this method, the horſe will begin to recover, and he will reliſh his hay, though his flanks will continue to heave pretty much for a fortnight; but nothing more will be requiſite to compleat the cure, than walking him abroad in the air, and giving him plenty of clean litter to reſt on in the ſtable.

But there is another and much worſe ſort of fevers, to which horſes are very ſubject, and which often proves fatal, if not properly treated.

The ſymptoms of this diſorder are a ſlow fever, with great depreſſion; he is ſometimes inwardly hot, and outwardly cold; and at other times hot all over, but not to any extreme. His eyes appear moiſt and languid; his mouth is continually moiſt, ſo that he is not deſirous of drinking; and when he does, a very little ſatisfies him. He eats very little, and even then moves his joints in a looſe, feeble manner, and grates his teeth very diſagreeably; his body is generally open, his dung ſoft and moiſt, his ſtaleing irregular, ſometimes making little, at others a large quantity of water, which is of a pale colour, and has very little ſediment.

The firſt relief is to take from him a moderate quantity of blood, let it not exceed three pints, but repeat the operation in proportion to his ſtrength, fullneſs, cough, or any tendency to inflammation; after which the nitre drink already deſcribed, may be given, with the addition of an ounce of ſnake-root, three drachms of ſaffron, and the ſame quantity of camphire firſt diſſolved in a little ſpirits of wine.

The diet and management will be nearly the ſame in all ſorts of fevers; and, in general, the following rules, if attended to, will be found uſeful. Let them have very little hay at a time in the rack, but always the beſt that can be picked out; if the hay is given out of the hand the horſe will ſometimes eat, whereas without ſuch care he would not: kindly horſes particularly require to be ſo fed. Oats are to be avoided, but bran, either ſcalded, or ſprinkled with a little water, if freſh and ſweet, may be frequently given in ſmall quantities. It is a bad cuſtom in theſe caſes to force warm water on horſes, it often creates a nauſea and loſs of appetite; if he will drink warm water, or warm oatmeal gruel that is very thin, he may, but if he prefers cold water, let him have it, for the cold often removes a nauſea, and reſtores the appetite; it ſhould alſo be given as often as he pleaſes, though not in full draughts. The cloathing may be the ſame as in health, for fevers in horſes do not go off as in men, by great ſweats, or by any other increaſed evacuation, but gradually abate by means of a ſtrong perſpiration; indeed, when the kernels about the head and neck are ſwelled, theſe parts may be kept a little warmer, as by this means a diſcharge at the noſe is increaſed, which is very ſalutary. Here it is neceſſary to caution againſt the practice of ſome who ſyringe the noſe, and thereby produce other ſwellings in the adjacent parts. When a horſe begins to recover, carefully avoid over-feeding him, for by ſuch a practice obſtinate relapſes or ſurfeits are produced; to increaſe the quantity of his food only as his ſtrength increaſes, will prevent ill effects, and produce the advantages required.

There is good reaſon to expect a ſpeedy recovery, when the fever is obſerved to abate, the mouth is leſs parched, the grating of the teeth is not much heard; when the horſe begins to eat, and lay himſelf down; if his ſkin feels kindly, and his eyes ſeem lively. But, if the appetite does not mend, or if it declines, and if the heat continues, the caſe is dangerous. When there is a running at the noſe, it is generally of a reddiſh or greeniſh duſky colour; it is thickiſh and clammy, ſticking to the hairs in the noſtrils: now if this matter becomes clear and watery, it is a favourable ſign; but if it continues thus viſcid and ill-coloured; if the horſe at the ſame time ſneezes frequently; if the fleſh is ſtill flabby, and he ſeems hide-bound; if the weakneſs increaſes, and the joints ſwell; the kernels under his jaws are looſe, and yet ſwelled; if he lifts up his tail with a quivering motion, the caſe is deſperate indeed.

We will introduce the method of cure by a remark on the pulſe, and the method of feeling it; in general it is obſerved, that on a medium the pulſe of a horſe in health, whoſe circulation is unaffected by any accident, is perceived forty times in a minute, and that if in ſuch a horſe the number of pulſations increaſe to fifty, the heat of his body far exceeds the heat of a healthy ſtate, or, in other words, he is in a fever. To diſcover the pulſations, lay your finger on the artery in the ſide of the neck, juſt above the cheſt, or feel for the arteries in the temples, or in the inſide of the legs, particularly the fore-legs, and you will perceive them very

very diſtinct. The ſame end is obtained by laying your hand on the horſe's ſide, to count the motions of the heart.

In proportion to the degree of heat, and the ſtrength of the horſe, bleed from three to ſix pounds, and if there is any apprehenſion of coſtiveneſs, give him a laxative clyſter; after this, let him have more or leſs, from two to four ounces, of the following ſaline powder, two or three times a day, according to the violence of the fever, which in the inflammatory ſpecies often requires full doſes; diſſolve it firſt in three or four pints of water, then add to it as much more water as he will drink at once, and that either warm or cold, as the horſe will take it beſt; if a little bran or barley-flour be mixed with this liquor, it will be leſs diſagreeable.

The Saline Powder.

Take ſalt-petre, five pounds; ſalt of tartar, one pound; mix them well in an iron or marble mortar, and then put it up in a bottle well corked, to be uſed as required.

During the uſe of this, or of any other preparation with nitre, the horſe ſhould be permitted to drink at pleaſure, for nitre, in order, being very uſeful, requires to be well diluted.

If by theſe means the horſe begins in a few days to eat a little, this method alone will be ſufficient, if care in nurſing is not neglected: but if the appetite does not return, nor the fever abate, repeat the bleedings, and continue the ſaline powder as before directed; and, if coſtive, give the following

Laxative Cooling Drink.

Take of cream of tartar, and of GLAUBER'S ſalt, each four ounces; diſſolve them in a ſufficient quantity of water for him to drink at one time.

As ſoon as by theſe methods he begins to eat, and the violence of the ſymptoms in general give way, though his flanks do heave, which will be the caſe ſeveral days after the abatement of all other ſymptoms, there will nothing farther be requiſite, than to walk him gently abroad now and then in the day, and to allow him plenty of litter.

In caſe of violent inflammation with the fever, which is attended generally with pain or ſwelling, or both, in particular parts; the ſame method in general will be required as in the caſe of ſimple fevers, only the bleedings ſhould be more plentiful, and, perhaps, oftener repeated; as alſo a more liberal uſe of the ſaline powder, and other cooling means. *See* INFLAMMATION *of the* PLEURA, *&c.*

The cure of intermittents will conſiſt in a cautious uſe, or an omiſſion of bleeding, according to the horſe's ſtrength: and during the intervals of the fits, to give an ounce of Peruvian bark, finely powdered, repeating it every four hours while the fit is abſent. If the bark runs off with a lax, add to it a little diaſcordium, or other aſtringent, enough to check that effect; but, perhaps, after the firſt day or two it may not purge, ſo that, except it continues to produce that effect, the aſtringents are beſt omitted. In caſe of any other ſpecies of fever intermitting, the ſame method may be uſed as where an intermittent is the original diſeaſe.

The low kind of fever rarely admits of bleeding, yet does not abſolutely forbid it; great circumſpection is here neceſſary, for ſymptoms which uſually require this evacuation, will in this caſe ſoon give way, from the very nature of the diſeaſe; however, if the horſe is young and ſtrong, if his veſſels ſeem filled with a rich blood, two or three pounds may be taken away in the beginning of the diſeaſe, and may be repeated as the force of any inflammatory ſymptoms may indicate.

Whether the bleeding is uſed or not, give the following cordial ſaline mixture:

Take of crude ſal ammoniac, two ounces; diſſolve it in three pints of water; then add to it one ounce of Virginia ſnake root, finely powdered, and three drachms of Engliſh ſaffron; mix, and give a pint three times a day, more or leſs, as the urgency of the ſymptoms may require.

If, notwithſtanding this, the fever increaſes, the appetite grows leſs; if the urine is thin, pale, and frequently ejected; the dung changeable, as to moiſture and dryneſs; if his gums ſeem red and ſpongy; if the coat ſtares; the caſe being now dangerous, give the following balls:

Compound Fever Balls.

Take of bark, finely powdered, one ounce; of Virginia ſnake-root, half an ounce; camphire, one drachm; honey enough to make a ball; to be given with each doſe of the cordial ſaline mixture; or with the following camphorated drink, according as the ſymptoms may require the one or the other. Or,

For horſes of ſmall value, the following balls may be ſubſtituted for the above-named:

Take of diapente and mithridate, each half an ounce; camphire, one drachm; make them into a ball, to be given every four or ſix hours, with a hornfull of an infuſion of ſnake-root, rue, and diaſcordium.

The Camphorated Drink.

Take of camphire, one drachm; diſſolve it in rectified ſpirit of wine, one ounce; add to it gradually a pint of diſtilled vinegar, and give half a pint for a doſe, mixed with a pint of thin gruel, or of water in which a little bran hath been ſtirred.

If the horſe is coſtive, laxative clyſters ſhould be given; though gentle and warm purges are rather to be preferred; if a purging comes on, let it continue, if it is moderate; but if it ſeems to enfeeble him, add gentle reſtringents, ſuch as diaſcordium to his drink; or, if needful, add more powerful remedies.

In this ſort of fever a horſe often ſtales with great difficulty, and his ſpirits are thereby much depreſſed. In this caſe prepare his drinks with freſh made lime-water, which ſhould be clear, but retaining as much of the heat as poſſible, that is excited by the addition of the lime to the water. If, notwithſtanding this, the

urine is ſtill defective, ſo that the body or limbs begin to ſwell, give the following diuretic drink:

Take nitre, one ounce; Venice turpentine, diſſolved with the yolk and white of one egg, half an ounce; then gradually add a pint of a ſtrong decoction of marſh-mallow-leaves, or of parſley-roots; let this be given for one doſe, and repeat it every four or ſix hours, until the urine flows freely.

In this diſeaſe, drinking is abſolutely neceſſary to dilute the blood, and therefore if the horſe refuſes warm water, he ſhould be indulged with ſuch as has had only the chill taken off, by ſtanding ſome time in the ſtable. And this will prove no diſadvantage, for the warm water forced on horſes, palls their ſtomachs for a time, and conſequently takes away their appetite; but this water, which has only ſtood in the ſtable, reſtores them.

If this method ſhould not prove ſufficient, but the fever continues to increaſe, the following balls ſhould be given immediately, as the danger augments every hour: take of contrayerva-root, myrrh, and ſnake-root, powdered, of each two drachms; of ſaffron, one drachm; of mithridate, or Venice treacle, half an ounce, make the whole into a ball, with honey, which ſhould be given twice a day, and waſhed down with two or three horns of an infuſion of ſnake-root, ſweetened with honey, and acidulated with half a pint of vinegar.

If theſe balls ſhould not anſwer the intention, (which will not often be the caſe) add to each a drachm of camphire, and, when the horſe is of value, the ſame quantity of caſtor.

Or, the following drink may be given, which has been often attended with ſucceſs: take of camphire, one drachm diſſolved in an ounce of rectified ſpirit of wine, pour it gradually into a pint of diſtilled vinegar, and give it at two doſes.

Perhaps there is not a more powerful and effectual medicine known than camphire, in all theſe kinds of putrid fevers, being active, attenuating, and particularly calculated to promote ſecretions of urine and perſpiration, the two principal outlets by which the febrile matters are diſcharged; and it would be fortunate for the poor beaſt, and advantageous to the farrier, if it were oftener given than at preſent.

It is neceſſary to be obſerved, that if the horſe ſhould prove coſtive, clyſters, or an opening drink, will be neceſſary; and ſhould he purge, care muſt be taken not to ſuppreſs it, if moderate; but if it continues long enough to render the horſe feeble, add diaſcordium to his drink inſtead of mithridate.

Another neceſſary obſervation is, to let him drink plentifully, as that will greatly tend to promote the operation of the above medicines, and conſequently render them more effectual in curing the diſorder.

A particular regard ſhould alſo be had to his ſtaling, which muſt be repreſſed by proper aſtringents, and giving him lime-water, if it ſhould flow in too great quantities: and on the other hand, if it happens, that he is too remiſs that way, and ſtales too little, ſo as to occaſion a fulneſs and ſwelling of his body and legs, the following drink ſhould be given: Take of ſal prunella, or nitre, one ounce; of juniper-berries, and Venice-turpentine, of each half an ounce, make the whole into a ball, with oil of amber.

Two or three of theſe balls may be given at proper intervals, and waſhed down with a decoction of marſhmallows, ſweetened with honey.

Theſe are the beſt methods of managing fevers, and will generally prove ſucceſsful; but ſometimes art will fail, and the horſe will diſcharge a greeniſh or reddiſh gleet from his noſtrils, and ſneeze very frequently; he will continue to loſe his fleſh, become hide bound, refuſe his meat, ſwell about the joints, and his eyes appear as if fixed and dead, and a purging enſue, in which he will diſcharge a fœtid, dark coloured matter; when theſe ſymptoms appear, his caſe may be conſidered as deſperate, and all attempts to ſave him will be in vain.

But, on the contrary, when his ſkin feels kindly, his ears and feet continue of a moderate warmth, his eyes look briſk and lively, his noſe continues clear and dry, his appetite mends, he lays down with eaſe, and dungs and ſtales regularly, you may conclude that the danger is over, and nothing wanting but care to compleat the cure.

But you muſt be very attentive to his feeding, and not ſuffer him to eat too much; his diet ſhould be light; a ſmall quantity only given him at one time, and increaſed by degrees, as he gathers ſtrength; for horſes have often catched great ſurfeits, and relapſed into their former diſeaſe, merely through over-feeding.

Sometimes the fever will be brought to intermit, or leave the creature for a time. If this ſhould happen, be very careful as ſoon as you find the fit is over, to give him an ounce of Jeſuit's bark, and repeat it every ſix hours, till the creature has taken five or ſix ounces: if any eruptions or ſwellings, they ſhould be encouraged, as they are good ſymptoms, and denote a termination of the diſtemper, and that no more medicines are neceſſary.

In the years 1732, and 1733, a terrible epidemic fever raged among the horſes, and it was then found by experience, that the ſimpleſt method was attended with the beſt ſucceſs, and that thoſe who treated the diſtemper in the following manner were rarely diſappointed.

The firſt operation was to bleed largely, to the quantity of three quarts, if the horſe was ſtrong and full of fleſh; and if his lungs were not relieved by it, but continued ſtuffed and loaded, the bleeding was repeated, and a rowel put in the cheſt or belly.

Theſe previous operations being performed, take care to dilute the blood, by giving the creature plenty of water, or white drink: and let his meat be warm bran maſhes, and his hay ſprinkled. If the fever ſhould increaſe, which may be known by the ſymptoms above deſcribed, give him an ounce of nitre thrice a day in his water, or made up into a ball with honey. Let his body be kept cool and open, with the opening drink, given twice or thrice a week; or an ounce of ſalt of tartar may

may be given every day, diſſolved in his water, obſerving to omit the nitre. After a week's treatment in this manner, the cordial ball may be given once or twice a-day, and waſhed down with an infuſion of liquorice root ſweetened with honey; to which may be added, when the phlegm is tough, or cough dry and huſky, a quarter of a pint of linſeed, or ſallad oil, mixed with an equal quantity of oxymel of ſquills.

Care ſhould be taken on theſe occaſions to keep the head and throat warmer than common, as the kernels about the latter are generally ſwelled, to promote a free perſpiration, and increaſe the running at the noſe, which has the ſame effect in a horſe as ſpitting in the human ſpecies. But never attempt to ſyringe the noſe, as ſome too often do, to promote the diſcharge; for it has quite a contrary effect, and will leſſen the quantity of matter which ſhould be increaſed as much as poſſible. The checking of this matter, not only increaſes the fever, but alſo occaſions bad ſwellings in the parts and glands, in and near the head. And let me once for all remind the practitioner, that all ſuch diſcharges are critical, and thrown off by nature to free herſelf from the load that oppreſſes her, and conſequently ſhould by all means be promoted.

Mr. LAWRENCE, in treating on fevers in horſes, ſays, "Fever is almoſt invariably combined with catarrh; and ſuch is the analogy between them in their cauſes, effects, and cure, that they might not very improperly be eſteemed ſynonymous, with the diſtinction of hot and cold catarrh. In a retropulſion of that fine fluid or exhalation, the perſpirable matter, which even thoſe who have corrected SANCTORIUS, make ſo conſiderable in quantity, if the load be thrown upon the pituitary membrane, and be evacuated by the uſual catarrhal diſcharge, the diſeaſe is called a cold; but if the obſtructed matter remain fixed upon any bowel, it may aſſume the denomination and guiſe of fever, or perhaps of ſome other diſeaſe.

The following extract on the theory of fever is from Dr. DARWIN.—"Simple fevers are of two kinds; firſt, the *febris irritativa*, or fever with ſtrong pulſe; which conſiſts of a previous torpor of the heart, arteries, and capillaries, and a ſucceeding orgaſm of thoſe veſſels. Secondly, the *febris inirritativa*, or fever with weak pulſe, which conſiſts of a previous torpor of the heart, arteries, and capillaries; and of a ſucceeding orgaſm of the capillaries, the torpor of the heart and arteries continuing. But as the frequency of the pulſe occurs, both in the ſtate of torpor, and in that of orgaſm of the heart and arteries; this conſtitutes a criterion to diſtinguiſh fever from other diſeaſes, which are owing to the torpor of ſome parts of the ſyſtem, as pareſis and hemicrania.

"*Compound Fever.* When other parts of the ſyſtem ſympathize with this torpor and orgaſm of the cutaneous capillaries, and of the heart and arteries; the fever fit becomes more complicated and dangerous; and this in proportion to the number and conſequence of ſuch affected parts."

The ſymptoms of fever in horſes, analogous to thoſe in our own ſpecies, are either mild, intermittant, inflammatory, or hectic and malignant; and there is an equal analogy in the claſs of medicines indicated, and the method of cure. Horſes, from the nature of their ſervices, and the ſeverities they undergo, muſt neceſſarily be much expoſed to febrile diſorders, ſome of the moſt common cauſes of which are, exceſs of exertion, particularly in the hot ſeaſon; plethora, or ſuperabundance of blood, from high feeding and little exerciſe; in general, any obſtructed humour thrown upon the circulation; the inſpiration of malignant air.

We refer thoſe who deſire much practical information upon this diſeaſe in horſes to GIBSON, who, if he has not treated it with ſcientific and logical preciſion, has done that which is of infinitely greater uſe; he has deſcribed the various ſymptoms from his own obſervation, and given a very rational method of cure from his own practice: from him chiefly have all our minor authors derived their pathology and preſcriptions in the different ſpecies of fever, which they have haſhed and ſerved up again, in that which each ſuppoſed to be the moſt plauſible form. BRACKEN is lame and imperfect on fever, obviouſly from haſte and inattention; but his looſe remarks deſerve to be read over.

BARTLET is the mere echo of GIBSON; but that indefatigable diligence, which is BARTLET's honourable characteriſtic, is ever at work to pick and cull from all quarters, whatever he judges may be uſeful to his readers:—in his *Pharmacopœia Hippiatrica*. OSMER, muſt be conſulted in Epidemics, and the veterinary practitioner, even if experienced, will not regret the ſmall labour of having peruſed Dr. LAYARD.

In the fevers of horſes which ſeldom retreat by critical ſweats, no additional clothing ſhould be uſed in the ſtable, nor the head covered, unleſs for the particular purpoſe of encouraging a critical diſcharge from the noſtrils. The ſtable ſhould not be kept in a ſtifling heat, and the horſe ought to be walked out daily, if circumſtances will permit; but abroad, he ought to wear his hood. GIBSON allowed cold water in fevers, and almoſt all other authors have implicitly followed him; but ſuch practice may be attended with extreme, probably inſtant danger. Water blood warm, or white water, that is, ſuch as has had a little bran, or oatmeal boiled in it, muſt ſurely be preferable; but if cold water muſt needs be allowed, let it be previouſly boiled.

Thoſe hot aromatic drenches of the common farriers, with which they do ſo much miſchief in fevers, have been cenſured; another caution is neceſſary againſt the common groundleſs apprehenſion of horſes ſtarving themſelves, by their abſtinence during ſickneſs; this is by no means peculiar to grooms, our good old nurſes, who, when we are debilitated, "cram us till our guts ache," with that delectably light, nutritious ſubſtance, calve's foot jelly, coming in for their full ſhare of the merit. Let it be remembered, that in general the appetite ought to be the only director in this caſe; and that nothing can be more prepoſterous than to force ſolid aliment upon a ſtomach moſt probably already overladen with morbid matter, which mixing with the new acceſſion, will either remain an inert indigeſted ſtercoraceous maſs, or going through the common proceſs of digeſtion, ſend an impure and vitiated chyle into the

the blood, to add new force and virulence to the diſeaſe. Should the horſe have faſted a conſiderable time, and no indication appear of returning appetite, his ſtrength will be beſt ſupported by nutritious clyſters, which may be exhibited ſeveral times in the day. Locks of the beſt and ſweeteſt hay ſhould be offered him, as the practical GIBSON well obſerves, by hand, a method by which moſt horſes will be tempted to feed, particularly if the food be tendered by a favourite. At any rate, ſolid corn is highly improper in fevers, unleſs in very ſmall quantities, and ground, as an addition to the maſh, and even that is moſt befitting the decline of the diſeaſe or convaleſcent ſtate: the common diet muſt be hay, ſcalded bran, or pollard, warm freſh grains.

On the re-eſtabliſhment of health, after any acute diſeaſe, it will be found of material conſequence to guard againſt the too ſudden return of appetite in the horſe; the inordinate indulgence of which may induce ſurfeit, indigeſtion, and the diſagreeable concomitants of an acceſſion of crude and unconcocted humours. Bring him gradually to his accuſtomed rations of ſolid meat. To counteract the ill effects of any morbid relics in the conſtitution, a doſe or two of purging phyſic, or a ſhort alterative courſe may be expedient; the choice in which muſt be left, in all caſes, to the judgment of the practitioner, who is referred to the Chapter on Purgatives. On the contrary, ſhould the patient be left by the diſeaſe in a weak and impoveriſhed ſtate, the craſis of his blood broken, his pulſe languid, and his appetite ſmall, ſhewing in his whole appearance what the old farriers called "leanneſs and miſlike;" recourſe muſt be had to a light and nouriſhing diet, with the daily aſſiſtance of a cordial ball. In this caſe, boiled meat has very ſudden happy effects. Boiled barley, or other corn. Turnips and oatmeal boiled, ſome of the liquor being infuſed in the drink. Boiled rice and potatoes. Baked potatoes. Raw carrots and lucern. Mild rhubarb purge. Moderate walking exerciſe on dry ground; for frequently relapſe, and very diſagreeable effects, enſue on the expoſure of the feet and legs to wet, in caſe of recent recovery from fever.

The common ſymptoms of fever in the horſe are extraordinary heat and dryneſs of the ſkin, jaws and tongue, ſtrong breath, pulſe quicker than natural, or intermittent, inflamed eyes, heaving at the flanks, and impeded reſpiration, ears and the lower extremities hot, reſtleſſneſs and fickle appetite, either to meat or drink, ſometimes avidity of drink, frequent caſting out of dung-balls, and difficulty of ſtaling, high coloured turbid urine. Theſe ſigns at their commencement may indicate nothing more than mild, ſimple fever, but if neglected in the common way, from want of obſervation, or in the plea of neceſſity, the diſeaſe either becomes inflammatory and of inſtant danger, or degenerates into that ſpecies of fever which uſually terminates in yellows or jaundice.

Simple fever, taken in time, ordinarily ſubmits, in three days, to a courſe of medicine and treatment nearly ſimilar to that recommended in a ſlight caſe of warm catarrh. Bleed agreeable to diſcretion as to quantity, give a drink of nitre, cream of tartar and honey, from one to two ounces of the two former, each a like quantity, in three pints of a warm decoction, or infuſion of any, or as many of the febrifugal herbs as can be readily obtained, twice a day; plying the horſe in the interim with as much of ſuch infuſion as he will take in his water, or if neceſſary, drenching him with it. The chief of theſe herbs are, ſcordium, or water germandes, pennyroyal, balm, ſage, ſweet fennel, chamomile, agrimony, pellatory, ſorrel, mallows, and dandelion, the whole plant with the roots; which laſt ſtands recommended by BOYLE as a febrifuge. The efficacy of theſe herbs, in this caſe, is by no means equivocal or contemptible; but if none can be conveniently obtained, give the medicine in gruel.

If inflammatory ſymptoms ſupervene, with violent pulſation, and throbbing in the arteries, ſo as even to be viſible, bleed according to the directions in the article on Bleeding, and continue the uſe of the lancet at intervals, whilſt the inflammation continues. Give the above medicine in an increaſed doſe. Suppoſe, one ounce and a half of nitre, and half an ounce cremor tartar, to two ounces and half nitre, and one ounce cremor tartar; according to the ſize and ſtrength of the horſe, every four hours. Back-rake, and give firſt a common clyſter; if the coſtiveneſs continue, with difficulty of ſtaling, give a purgative and diuretic clyſter.

The following neutral mixture, from BARTLET, may alſo be made trial of, two or three times a day, a pint each time. Ruſſia pearl-aſhes, one ounce; diſtilled vinegar, one pint; ſpring water, two pints; honey, four ounces. Or, at one period each day, ſubſtitute for the nitre drink, the following: Infuſion or decoction of rue and chamomile, rather ſtrong, three pints; antimonial wine, one ounce; camphor and caſtor, each one drachm; contrayerva fine powder, half an ounce. Waſh the horſe's mouth and throat with white water. It is with horſes which are high fed, and have been neglected as to exerciſe and evacuations, and in conſequence full of rich and ſpirituous blood, that the diſeaſe attains this ardent and inflammatory ſtate; being neglected, it terminates fatally in a very ſhort period; but the early application of the method juſt recommended, ſeldom fails of ſucceſs, becauſe patients ſubject to this exalted ſpecies of fever are generally found in body, and have good ſtamina.

SOLLEYSEL notices a fever, which he calls a *Palpitation of the Heart*; the diagnoſtics, violent heaving of the flanks, and laborious reſpiration. He adviſes one remedy, which no man in his wits will adopt; namely, to let the horſe blood in the neck-vein, and then keep him an hour ſtanding up to the neck in water. It is ſometimes the forerunner of a broken wind, or in a broken-winded horſe, the ſign of exacerbation of the diſeaſe, and approach to its worſt ſtage. Bleedings. Neutral ſalts, with infuſions of the herbs as before. Tar water.

There is a low, inirritative fever, attended with great debility, with which horſes are often ſeized very ſuddenly.

Fever may ariſe from eating unwholeſome food, or the conſtant uſe of foul water. Mouldy and rotten hay and garbage, muſty corn or bran, ſoft beans,

beans, or too many even of the beſt beans: all have a tendency to produce an improper and feveriſh blood.

Contagious Fever is either mild or peſtilential, according to the degree of virulence in the exhalation inſpired. In the firſt caſe, it is extremely probable that the animals affected have all received the contagion from one common ſource, the air; and not from infection one of the other, the contagious material not being ſufficiently ſtrong for that end. In peſtilential and putrid fevers, ulcers, abſceſſes, or buboes, are formed, where freſh matter is generated, capable of reproducing infection. Dr. DARWIN ſuppoſes, "that the matter of all contagious diſeaſes, whether with or without fever, is not infectious, till it has acquired ſomething from the air, which by oxygenating the ſecreted matter, may probably produce a new acid." Perhaps all it acquires is, emiſſion for the miaſmata, and liberty of action, ſince the moſt noxious vapour confined is perfectly impotent.

In *Epidemic*, or *Malignant Fever*, the pulſe is ſeldom or never very high, as perhaps the bare impetus of the blood, in an inflammatory ſtate, would itſelf reſiſt the tendency to putrefaction, at leaſt for a time. The diagnoſtics are, ſlow fever, with languor and great depreſſion, irregularity of pulſe, with alternation of heat and cold. Eyes dull and moiſt, with moiſture and foulneſs in the mouth, faint appetite, with feeble motion of the jaws, accompanied with an unpleaſant grating of the teeth. Excrement frequently dropping in a looſe and rotten ſtate. Staling irregular, ſometimes very little and with difficulty; at others, the urine pours down ſuddenly in large quantities, pale, without ſediment. Watchfulneſs and continual ſtanding. Sometimes a diſcharge of a browniſh diſagreeable colour iſſues from the noſtrils, but in ſmall quantity.

The cure uſually commences with bleeding, but it ought to be in a moderate quantity, and in this caſe does not always require repetition. Should the hide of the horſe feel much clung together, and bound, inſert a rowel or two. Clyſters as before, according to the neceſſity, that the body may be kept properly open: Alſo give the following ball twice a day, and at convenient intervals, a few pints of the infuſion of herbs, acidulated with cremor tartar. Diaphoretic antimony, four drachms; camphor, one drachm; myrrh and Virginian ſnake-root, powdered, each two drachms; make the ball with ſyrup of ſaffron. In caſe of hoarſeneſs, rattling in the throat, or cough, more blood may be drawn. Watch the diſcharge from the noſtrils, which may be critical, and encourage it with warm clothing upon the head and throat. It may be obſerved that the diaphoretic antimony is pretty nearly the ſame thing with Dr. JAMES's famous powder, and the above ball and treatment rarely fails, even in caſes of much apparent danger; but for the farther ſatisfaction of the reader, I will inſert certain other forms in the ſame intent. Diaphoretic antimony being a uſeful fever powder and alterat for cattle, I have given the receipt for thoſe who chuſe to prepare it themſelves, and alſo a preparation of ſimilar intent, much recommended by OSMER; the efficacy and ſudden good effect of which I once ſaw, in a horſe ſeized with a kind of influenza ſome years ago.

Diaphoretic Antimony. Mix powdered antimony with three times its weight of nitre, and gradually put the maſs into a crucible juſt beginning to glow; then, the mixture being taken from the fire, let it be purified by waſhing with water, as well from the ſalts, as from the groſſer parts leſs perfectly calcined.

TOUNEFORT's *Fever Powder.* Hartſhorn ſhavings half a pound, boil in ſpring water full an hour; then place them in a diſh before the fire, till dry enough to powder. Mix them with an equal quantity of antimony, both in powder; put the mixture in an unglazed earthen pan over a ſlow fire, and keep it ſtirring with an iron ſpatula to prevent its caking together; when it ceaſes to ſmoke, the proceſs is finiſhed, and there will remain an aſh-coloured powder. If deſired more white, calcine awhile in a red-hot crucible. Doſe from one to two drachms, in a ball with honey and liquorice powder, twice a day, waſhed down with a horn or two of decoction of ſcordium, or the infuſion of herbs, or gruel, as before. Nitre in about double the quantity of the antimony, may be deflagrated in the crucible with it and the hartſhorn; and if to the powder there be added calcined mercury, in the proportion of a ſcruple of the mercury to two drachms, a moſt potent medicine will be produced. Keep it cloſe ſtopped up in a glaſs.

Fever Drink from BARTLET. Contrayerva and ſnake-root, two ounces each; liquorice-root, ſliced, one ounce; ſaffron, two drachms; infuſe in two quarts boiling water, cloſe covered, two hours; ſtrain off, and add half a pint diſtilled vinegar; four ounces ſpirit of wine, in which half an ounce camphor has been diſſolved, and two ounces Venice treacle; doſe, one pint, every four, ſix, or eight hours. In caſe of cough and ſoreneſs of the breaſt, give frequently three ounces cold drawn linſeed oil, ſame quantity honey; one ounce ſalt or cream of tartar in an infuſion of rue and chamomile.

In the worſt ſpecies of *putrid* or *peſtilential fever* in horſes, the diagnoſtics are as follow:—Dimneſs, with a glazed and lifeleſs appearance in the eyes, and a diſcharge from them; running at both the noſe and mouth of a brown or greeniſh colour, and fœtid ſmell, which ſticks to the noſtrils; no appetite, particularly to drink; putrid breath; exceſſive debility, ſo as to ſtagger when led; trembling; uneven pulſe; generally low; ſkin ſometimes hot, then ſuddenly cold; ſwelled glands; tumours to be felt under the ſkin in various parts; ſwelled joints; diarrhœa, or ſcouring of offenſive matter dark in colour, of the diſcharge of which the horſe ſeems ſcarce ſenſible.

As to the prognoſtics, putrefaction ſometimes proceeds ſo rapidly, owing perhaps to a previous depraved ſtate of the humours, that medicine ſeems to make no ſenſible effect, and death happens in a day or two.

FEVER IN SHEEP. This diſorder firſt ſhews itſelf by an inflammation in the eyes and mouth; the feet grow hot at the ſame time, and they are uneaſy and reſtleſs. The uſual cauſes of this diſorder are cold and wet feeding, and, when the whole flock is diſtempered

together, as is ſometimes the caſe, it is as fatal almoſt as the rot.—CURE.

They muſt be removed to a piece of high dry ground, and have ſhelter. Thoſe that are ill muſt be firſt blooded; after which give them the following medicine:—

Diſſolve half an ounce of mithridate in a pint of warm ale; divide this into two doſes, and give one at night, and the other in the morning. If two doſes do not produce a good effect, add ten grains of powder of contrayerva to each doſe following, and in general two or three days will complete the cure.

FEVER IN ASSES: the following is conſidered an excellent remedy:—

Get two ounces of the juice of parſley, put it into a glaſs of white-wine or beer, which you can moſt conveniently get, diſſolve it in half an ounce of mithridate; keep him warm, bleed, and feed him with good warm maſhes.

FEVER IN CATTLE. A fever may be taken in the heat of ſummer, by driving or hard labour, or by drinking cold water when they are exceeding hot, and ſo cauſe a ſhaking on them at firſt, and afterwards produce a fever. They will be very heavy in the head, have ſwoln eyes, an extreme heat in their bodies, and their hair will ſtand of a ſweat upon their backs.

You muſt cut ſome graſs, and give them ſome lettice among it, to cool their bodies, and the next morning let them blood in the neck-vein; then give them the juice of parſley blended with gum-dragant, anniſeeds, the powder of damaſk-roſes, and put it into a quart of ſtrong ale, ſweetening it with honey; then blend all together, and give it them three mornings one after another milk-warm: keep them warm, and they will mend preſently.

Cattle may alſo get the fever in winter as well as in ſummer, (if the beaſt be low in fleſh) by drinking cold water, eſpecially in a morning, they will begin to ſhake and tremble; and, if they catch the fever, they will tremble, have heavy eyes, and groan and froth at the mouth.

Firſt let them blood, then give them a quart of ale, four roots of plantane and two ſpoonfuls of the beſt London treacle; then ſprinkle their meat with water, and they will recover.

FIANTS, } The dung of deer.
FAUNTS, }

FIG IN HORSES. A diſeaſe that takes its name from a wart or broad piece of fleſh, growing upon the fruſh towards the heel, reſembling a fig in ſhape.

It proceeds from ſome hurt received in the foot, that has not yet been thoroughly cured: or by a ſtub or nail, bone, thorn, or ſtone, and ſometimes by an overreach upon the heel or fruſh.

The beſt method of treating them all is, to cut them as clean away as poſſible; and if any part is left behind, which was not eaſy to come at with the knife, touch it with a cauſtic; and if that fails to deſtroy the ſmall remains, ſecure a bit of ſublimate upon it. When the root is fairly cleared away, and not before, waſh the part daily with the following:—

Take of galls, alum, and white vitriol, in powder, each two ounces; boil them a few minutes in four pints of lime-water; and, when cool enough, pour off the clear liquor, into a bottle, for uſe.

If any of the root remains, it will grow, and the cure is as far off as before it was begun.

If, in cutting theſe excreſcences, an artery ſhould be wounded, or a profuſe bleeding come on, a doſſil of lint may be preſſed over the orifice of the bleeding veſſels; over this lay other pledgets of tow, ſecure them cloſely, and in ſuch a quantity, as that a due preſſure on the part may be made by the bandage: remove the dreſſings in two or three days, but not wholly: leave the doſſil of lint which is next to the wounded veſſels to digeſt away; if it adheres at all, cover it up as before with pledgets, ſecured as at the firſt, to prevent a freſh bleeding. After the firſt removal of the dreſſings, continue to examine and dreſs the part every day.

FIGGING. *See* WARRANTRY.

FILANDERS, a diſeaſe incident to hawks, of which there are ſeveral ſorts; but that which demands our greateſt attention, is the one that ſticks to the reins. They are worms as ſmall as a thread, and about an inch long, which lie wrapt up in a thin ſkin, or net, near the reins, apart from either gut or gorge.

You may know when a hawk is troubled with the filanders by her poverty, by her ruffling her train, by her ſtraining the fiſt or perch with her pounces, and laſtly by croaking in the night when the filanders prick her.

This malady muſt be remedied betimes, before theſe worms have enlarged themſelves, from their proper ſtation roving elſewhere, to the ruin and deſtruction of the hawk.

They muſt not be killed as other worms are, for fear of impoſtumes from their corruption, being incapable of paſſing away with the hawk's mewt, but only ſtupify them, that they may be offenſive but ſeldom, which is to be done as follows:—

Take a head of garlic, peel off the outermoſt rind, then having a bodkin heated in the fire, make holes in ſome cloves, which ſteep in oil for three days, and after this give her one of the cloves down her throat, and for forty days after the filanders will not be troubleſome to her.

Therefore it will be the prudence of the falconer, when ſeeing the hawk poor and low, to give her once a month a clove of this garlic by way of prevention.

Or, boil half a dozen cloves of garlic in milk, till they are tender, then take them out and dry the milk out of them, and afterwards put them into a ſpoonful of the beſt oil of olives you can get, and when ſhe hath caſt in the morning give theſe to the hawk; feed her in two hours after, and let that be warm meat, and not much of it, and keep her warm that day for fear of taking cold; give her the oil with the garlic. They muſt ſteep all night.

FILLETS. The loins of a horſe, which begin at the place where the hinder part of the ſaddle reſts.

FILLY. A term among horſe-dealers, to denote the female or mare colt.

FILM WHITE UPON THE EYE OF A HORSE, may be removed by lifting up the eye-lid, after the eye has been washed with wine, and stroaking it gently with one's thumb, with wheat flour: also common salt, or salt of lead, beaten fine and put into the eye is proper to consume a film; or you may wash the horse's eye with your spittle in the morning fasting, having first put a little salt into your mouth: but there is nothing so effectual as sal-ammoniac beaten and put into the eye, and repeated every day till the film is gone.

FIMASHING. The dunging of any sort of wild beasts.

FIRE. To give the fire to a horse, is to apply the firing iron red hot to some preternatural swelling, in order to discuss it; which is oftentimes done by clapping the firing iron to the skin without piercing through.

We give fire to farcy knots by running a pointed burning iron into the ulcer.

We likewise give fire for wrenches of the pasterns.

FIRING IRON is a piece of copper or iron about a foot long, one end of which is made flat, and forged like a knife, the back of it being half an inch thick, and the fore edge about five or six times thinner.

When the farrier has made his firing iron red hot in the forge, he applies the thinnest part to the horse's skin, and so gives the fire to the hams, or such places as stand in need of it.

FISH. As to the quality of breeding them, it is scarce to be found out by any certain symptom; for some very promising ponds do not always prove serviceable: one of the best indications of a breeding pond is, when there is good quantity of rush and grazing about it, with gravelly shoals, such as horse-ponds usually have; so that when a water takes thus to breeding, with a few milters and spawners, two or three of each, a whole country may be stocked in a short time. Eels and perch are of very good use to keep down the stock of fish; for they prey much upon the spawn and fry of bred fish, and will probably destroy the superfluity of them. As for pike, perch, tench, roach, *&c.* they are observed to breed in almost any waters, and very numerously; only eels never breed in standing waters that are without springs; and in such are neither found nor increase, but by putting in; yet where springs are, they are never wanting, though not put in. And, which is most strange of all, no person ever saw in an eel, the least token of propagation, either by milt or spawn; so that whether they breed at all, and how they are produced, are questions equally mysterious, and never as yet resolved.

For the method of feeding fish, take the following remarks:—1. In a stew, thirty or forty carps may be kept up from *October* to *March*, without feeding; and by fishing with tramels or flews in *March*, or *April*, you may take from your great waters to recruit the stews; but you must not fail to feed all summer, from *March* to *October* again, as constantly as cooped chickens are fed, and it will turn to as good an account.

2. The care of feeding is best committed to a butler or gardener, who should be always at hand, because the constant and regular serving of the fish, conduces very much to their well eating and thriving.

3. Any sort of grain boiled is good to feed with, especially pease, and malt coarse ground; the grains after brewing while fresh and sweet are very proper; but one bushel of malt not brewed will go as far as two of grains; chippings of bread, and scraps off a table, steeped in tap droppings of strong beer or ale, are excellent food for carp; of these the quantity of two quarts to thirty carp every day is sufficient, and to feed morning and evening, is better than once a day only.

4. There is a sort of food for fish that may be called accidental, and is no less improving than the best that can be provided; and that is, when the ponds happen to receive the wash of commons, where many sheep have pasture, the water is enriched by the soil, and will feed a much greater number of carp than it otherwise would do; and farther, the dung that falls from cattle standing in the water in hot weather, is also a very great nourishment to fish.

5. More particularly, the most proper food to raise pike to an extraordinary fatness, is eels, and without them it is not to be done but in a long time; otherwise small perches are the best meat you can give them. Bream put into a pike-pond, breed exceedingly, and are fit to maintain pikes, that will take care they shall not increase over much; the numerous fry of roaches and rouds which come from the greater pools into the pikes quarters, will likewise be good diet for them.

6. Pike in all streams, and carp in hungry springing waters, being fed at certain times, will come up and take their meat almost from your hand; and it is a diverting object, to see the greediness and striving that will be among them for the good bits, with the boldness they will attain to by constant and regular feeding.

7. The most convenient feeding place is towards the mouth of the pond, at the depth of about half a yard; for by that means the deep will be kept clean and neat, as it were a parlour to retire to and rest in: the meat, thrown into the water, without other trouble, will be picked up by the fish, and nothing shall be lost; yet there are several ingenious devices for giving them food, especially pease: as a square board let down with the meat upon it by the four corners, whence a string comes, made fast to the end of a stick like a scale, which may be readily managed.

8. When fish are fed in the larger pools or ponds, where their numbers are also great, there will be some expence as well as pains; but as soon as they are taken out, and it appears how they are thriven, you will allow both well employed; either malt boiled or fresh grains is the best food in this case. Thus carp may be fed and raised like capons, and tench will feed as well, but perch are not for a stew in feeding time.

As to the benefits that redound from the keeping of fish, besides furnishing your table, obliging your friends, and raising money, your land will be vastly improved, so as to be really worth, and yield more this way than by any other employment whatsoever: for suppose it to be a meadow at 2*l.* per acre: four acres in pond will return you every year a thousand fed carp, from the

leaſt ſize to fourteen or fifteen inches long; beſides pike, perch, tench, and other fry; the carp are ſaleable, and will bring 6d. 9d. and perhaps 12d. a piece, amounting in all to 25l. which is 6l. 5s. per acre, the charge of carriage only to be deducted.

When a great water is deſigned to be brought, you take the firſt ſpit of the ground upon which the bank is to ſtand, and form the pan of the pond. Now in caſe you convey the earth taken thence to ſome place where it may be eaſily removed upon your tillage land, let it lie there to rot the ſod, and there is not a better manure to be had, being alſo more than pays the charge of digging and carrying it off.

You gain the making of ſtews, and it may be other ponds for the convenience of your cattle, all at one expence; for if you are obliged to dig clay and earth for your bank, it is as eaſily taken where it does this, as otherwiſe.

If the ſoil about the waters be in any wiſe mooriſh, it may be planted with oziers, which yield a certain yearly crop.

The feed of the pond when laid dry, and the corn, *i. e.* oats, which you may have upon the bottom, though mere mud, is very conſiderable.

If cattle graze near your great pools, they will delight to come and ſtand in the water, which conduces much to the thriving of your beaſts, as well as to the feeding of your fiſh by their dunging, as has been already hinted: it is therefore adviſeable to have ponds in cow paſtures and grazing grounds.

As to the ſowing of oats in the bottom of a pond, take care to dry your great water once in three, or at moſt four years, and that at the end of *January*, or beginning of *March* which (if the year do not prove very unſeaſonable) will be time enough. After *Michaelmas* following, you may put in a great ſtock of fiſh, and thin them in ſucceeding years, as the feed declines. *See* POND HEADS.

Of Fiſh Ponds, Stews, &c.

As to the moſt ſcientific method of making fiſh-ponds, ſtews, *&c.* it is agreed that thoſe grounds are beſt, which are full of ſprings and apt to be mooriſh: the one breeds them well, and the other preſerves them from being ſtolen.

The ſituation of the pond is alſo to be conſidered, and the nature of the currents that fall into it; likewiſe that it be refreſhed with a little brook, or with rain-water that falls from the adjacent hilly ground. Add, that thoſe ponds which receive the ſtale and dung of horſes breed the largeſt and fatteſt fiſhes.

In making the pond, obſerve that the head be at the loweſt part of the ground; and that the trench of the flood-gate, or ſluice, have a good ſwift fall, that it may not be long in emptying.

If the pond carry ſix feet of water, it is enough; but it muſt be eight feet deep, to receive the freſhes and rains, that ſhould fall into it.

It would alſo be advantageous to have ſhoals on the ſides, for the fiſhes to ſun themſelves in, and lay their ſpawn on; beſides in other places, certain holes, hollow banks, ſhelves, roots of trees, iſlands, *&c.* to ſerve as their retiring places. Conſider farther, whether your pond be a breeder: if ſo, never expect any large carps from thence; the greatneſs of the number of *ſpawn* overſtocking the pond.

For large carps a ſtore-pond is ever accounted the beſt: and, to make a breeding-pond become a ſtore-pond, ſee what quantity of carps it will contain; then put in all milters, or all ſpawners, whereby in a little time you may have carps that are both large and exceedingly fat. Thus, by putting in one ſex, there is an impoſſibility of the increaſe of them; yet the roaches, notwithſtanding this precaution, will multiply. Reſerve ſome great waters for the head quarters of the fiſhes, whence you may take, or wherein you may put, any quantity thereof. And be ſure to have ſtews, and other auxiliary waters, ſo as you may convey any part of the ſtock from one to the other, and loſe no time in the growth of the fiſhes, but employ your water, as you do your land, to the beſt advantage. View the grounds, and find out ſome fall between the hills, as near a flat as may be, ſo as to leave a proper current for the water. If there be any difficulty of judging of ſuch, take an opportunity, after ſome ſudden rain, or breaking up of a great ſnow in winter, for you will plainly ſee which way the ground caſts; for the water will take the true fall, and run accordingly.

The condition of the place muſt determine the quantity of the ground to be covered with water. For example, I may purpoſe in all fifteen acres in three ponds, or eight acres in two, and not leſs; and theſe ponds ſhould be placed one above another, ſo as the point of the lower may almoſt reach the head or bank of the upper, which contrivance is no leſs beautiful than advantageous.

The head, or bank, which, by ſtopping the current, is to raiſe the water, and ſo make a pond, muſt be built with the clay and earth taken out of the pan, or hollow, dug in the loweſt ground above the bank: the ſhape of the pan to be half an oval, whereof the flat to come to the bank, and the longer diameter to run ſquare from it.

For two large ponds of three or four acres apiece, it is adviſeable to have four ſtews, each two rods wide, and three long. The ſtews are uſually in gardens, or near the houſe, to be more handy and better looked to. The method of making them, is to carry the bottom in a continual decline from one end, with a mouth to favour the drawing the net.

FISHING-FLIES, are both natural and artificial; the natural are almoſt innumerable, of which I ſhall name only the moſt principal, *viz.* the dun-fly, the ſtone or May-fly, the tawny-fly, the vine-fly, the ſhell-fly, the cloudy and blackiſh fly, the ſtag-fly; alſo caterpillars, canker-flies, bear-flies, *&c.* all which appear either ſooner or later, according as the ſpring proves forward or backward; and theſe flies are all good in their ſeaſon, for ſuch fiſh as riſe at the fly.

The better to know the fly the fiſh covets moſt, when you come to the river ſide in the morning, beat the buſhes with your rod, and take up as many various ſorts as you can, and make a trial of them, and by that

that means you will find which ſort they bite moſt eagerly at; though they will ſometimes change their fly, but this is only when they have glutted themſelves with that ſort they like beſt.

There are two ways of fiſhing with theſe natural flies, *viz.* either on the ſurface of the water, or a little underneath it.

If you angle for chevin, roach, or dace, move not the natural fly ſwiftly when you ſee the fiſh make at it, but rather let it glide freely towards him with the ſtream; but if it be in a ſtill and ſlow water, draw the fly ſlowly ſide-ways by him, and this will cauſe him to purſue it eagerly.

As for the artificial fly it is ſeldom uſed but in bluſtering weather, when the waters are ſo diſturbed by the wind, that a natural fly cannot well be ſeen, nor reſt upon them.

There are twelve ſorts of dubs or artificial flies, of which theſe that follow are the principal:—

1. For *March*, the dun-fly; made of dun wool, and the feathers of the partridge's wing; or the body made of black wool and the feathers of a black drake.

2. For *April*, the ſtone-fly; the body made of black wool, dyed yellow under the wings and tail.

3. For the beginning of *May*, the ruddy-fly; made of red wool, and bound about with black ſilk, with the feathers of a black capon hanging dangling on his ſides, next his tail.

4. For *June*, the greeniſh fly; the body made of black wool, with a yellow liſt on either ſide, the wings taken off the wings of a buzzard, bound with black broken hemp.

5. The mooriſh-fly, the body made of duſkiſh wool, and the wings of the blackiſh mail of a drake.

6. The tawny-fly good till the middle of *June*; the body made of tawny wool, the wings made contrary one againſt the other, of the whitiſh mail of a white drake.

7. For *July*, the waſp-fly; the body made of black wool, caſt about with yellow ſilk, and the wings of drakes feathers.

8. The ſteel-fly, good in the middle of *July*; the body made with greeniſh wool, caſt about with the feathers of a peacock's tail, and the wings made of thoſe of the buzzard.

9. For *Auguſt*, the drake-fly; the body made with black wool caſt about with black ſilk, his wings of the mail of a black drake, with a black head. *For the different kinds of Fiſh, and Directions for taking them, ſee each under their proper Article; as for* CARP-FISHING *ſee* CARP. *And for* FLY-FISHING *ſee the different Months*, April, Auguſt, *&c.*

Directions for artificial Fly-Fiſhing.

1. Fiſh in a river that has been ſomewhat diſturbed by rain, or in a cloudy day, when the waters are moved by a gentle breeze; if the winds be gentle, the beſt angling will be in ſwift ſtreams, but if it blows ſomewhat ſtrong, but not ſo but that you may conveniently guard your tackle, the fiſh will riſe in plain deeps.

2. Always angle with a ſmall fly and clear wings, in clear rivers; but uſe larger in muddy places.

3. Keep at as good diſtance from the water-ſide as you can, and fiſh down the ſtream with the ſun at your face, and touch not the water with your line.

4. When the water becomes browniſh after rain, uſe an orange-fly; and in a clear day, a light coloured fly, and a dark fly for dark waters, *&c.*

5. Have ſeveral of the ſame of every ſort of fly, differing in colour, to ſuit the colours of ſeveral waters and weathers.

6. Let the fly fall firſt into the water, and not the line, which will be apt to fright the fiſh.

7. Let your line be twice the length of your rod, unleſs the river be encumbered with wood.

8. In ſlow rivers, or ſtill places, caſt the fly over croſs the river, and let it ſink a little in the water, and draw it gently back with the current.

9. Make uſe of a quick eye and nimble hand, to ſtrike preſently with the riſing of the fiſh, leſt he ſhould have time to ſpew out the hook.

Every one that delights in fly-fiſhing, ought to learn the way of making two ſorts of artificial flies, the palmer, ribbed with ſilver or gold, and the May-fly.

In making of the palmer-fly, you muſt arm your line on the inſide of the hook, and cut off ſo much of a mallard's feathers to make the wings.

Then lay the outermoſt part of the feather next the hook, and the point of the feather towards the ſhank of the hook, whip it three or four times about the hook with the ſame ſilk you armed your hook, and make the ſilk faſt.

Take the hackle of the neck of a cock or capon, (but a plover's top is beſt) and take off one ſide of the feather, and then take the hackle, ſilk, or gold or ſilver thread, and make all theſe faſt at the bent of the hook, working them up to the wings, ſhifting your fingers every turn and making a ſtop, then the gold will fall right, which make faſt.

After this, take the hook betwixt your finger and thumb, in the left hand, and with a needle or pin part the wings in two, then with the arming ſilk (having faſtened all hitherto) whip it about as it falls acroſs between the wings, and with your thumb turn the point of the feather towards the bent of the hook, then work it three or four times about the ſhank, and faſten it; and view the proportion for other flies.

If you make the grounds of hog's-wool, ſandy, black, or white, or bear's wool, or of a red bullock, work theſe grounds on a waxed ſilk, and arm and ſet on the wings as before directed.

The body of the May-fly muſt be wrought with ſome of theſe grounds, which will be admirably well, when ribbed with black hair or ſilk.

Others make them with ſandy hog's wool, ribbed with black ſilk, and winged with a mallard's feather, according to the angler's fancy.

The oak-fly muſt be made with orange tawny, or orange coloured crewel, and black for the body; and the brown of the mallard's feathers for the wings.

Laſtly,

Laſtly, there is another fly, the body of which is made of the ſtrain of a peacock's feather.

March is the month to begin to angle with the fly, but if the weather prove windy or cloudy, there are ſeveral ſorts of palmers that are good at that time: the firſt is a black palmer, ribbed with ſilver; the ſecond, a black palmer with an orange tawny body; thirdly, a palmer whoſe body is all black; laſtly, there is a red palmer, ribbed with gold, and a red hackle mixed with orange crewel.

Obſerve, that the lighteſt flies are for cloudy and dark weather, and the darkeſt for bright and light, and the reſt for indifferent ſeaſons.

Salmon-flies ſhould be made with their wings ſtanding one behind the other, whether two or four, and of the gaudieſt colours that can be, for he delights in ſuch; and this chiefly in the wings, which muſt be long as well as the tail.

You are to note that there are twelve kinds of artificial made flies to angle with upon the top of the water. Note by the way, that the fitteſt ſeaſon of uſing theſe, is a bluſtering windy day, when the waters are ſo troubled that the natural fly cannot be ſeen, or reſt upon them. The firſt is the dun-fly in *March*, the body is made of dun-wool, the wings of the partridge's feathers. The ſecond is another dun-fly, the body of black wool, and the wings made of the black drake's feathers, and of the feathers under his tail. The third is the ſtone-fly in *April*, the body is made of black wool made yellow under the wings, and under the tail, and ſo made with the wings of the drake. The fourth is the ruddy fly in the beginning of *May*, the body made of red wool wrapt about with black ſilk, and the feathers are the wings of the drake, with the feathers of a red capon alſo, which hang dangling on his ſides next to the tail. The fifth is the yellow or greeniſh fly, in *May* likewiſe, the body made of yellow wool, and the wings made of the red cock's hackle or tail. The ſixth is the black fly, in *May* alſo, the body made of black wool, and lapt about with the herle of a peacock's tail; the wings are made of the wings of a brown capon, with his blue feathers in his head. The ſeventh is the ſad yellow fly in *June*, the body is made of black wool, with a yellow liſt on either ſide, and the wings taken off the wings of a buzzard, bound with black braked hemp. The eighth is the mooriſh-fly, made with the body of duſkiſh wool, and the wings made of the blackiſh mail of the drake. The ninth is the tawny-fly, good until the middle of *June*, the body made of tawny wool, the wings made contrary one againſt the other, made of the whitiſh mail of the wild drake. The tenth is the waſp-fly in *July*, the body made of black wool, lapt about with yellow ſilk, the wings made of the feathers of the drake or of the buzzard. The eleventh is the ſhell-fly, good in *Mid-July*, the body made of greeniſh wool, lapt about with the herle of a peacock's tail, and the wings made of the wings of a buzzard. The twelfth is the dark drake-fly, good in *Auguſt*, the body made with black wool, lapt about with black ſilk; his wings are made with the mail of zin-bag, the peacock's feather, and grounds of ſuch wool and crewel as will make the graſshopper; and note, that uſually the ſmalleſt flies are the beſt; alſo, that the light fly does uſually make moſt ſport in a dark day, and the darkeſt and leaſt fly in a bright or clear day: laſtly, that you are to repair upon any occaſion to your magazine-bag, and vary and make them lighter or darker according to your fancy or the day.

The *May*-fly may be found in and about that month, near to the river-ſide, eſpecially againſt rain; the oak-fly on the butt or body of an oak or aſh, from the beginning of *May* to the end of *Auguſt*; it is a browniſh fly, and eaſy to be found, and ſtands uſually with his head downwards towards the root of the tree; the ſmall black-fly, or hawthorn-fly, is to be had on any hawthorn-buſh after the leaves are off: with theſe and a ſhort line, you may dape or dop, and alſo with a graſs-hopper behind a tree, or in any deep hole, ſtill making it to move on the top of the water as if it were alive, and ſtill keeping yourſelf out of ſight, you will certainly have ſport if there be trout.

Mr. Best ſays, there are two ſalmon flies, which are the principal ones, called the Dragon and the King's-fiſher, about two inches long, which may be made according to fancy, but of the moſt gaudy feathers there are, eſpecially the peacock's, for they will riſe at any thing gaudy, and, where they are plenty, at trout flies.

There are likewiſe two moths, great killers about twilight in a ſerene evening, and the humble-bee a famous chub-killer any time of the day. They are dubbed in the following manner: the brown moth, the wings of the feather of a brown owl; dubbed with light mohair, with a dark grizzle cock's hackle for the legs, and a red head. The white moth, dubbed with the white ſtrands of an oſtrich's feather; wings of the feather of a white pigeon's wing; a white hackle for the legs, and a black head.

The humble-bee; dubbed with black ſpaniel's fur; a black cock's hackle over that; the tag of the tail to be of a deep orange colour, and the wings of the feather of a crow's wing.

Paſtes for fiſhing are variouſly compounded, almoſt according to the angler's own fancy; but there ſhould always be a little cotton wool, ſhaved lint, or fine flax, to keep the parts together, that it may not fall off the hook. White bread and honey will make a proper paſte for carp and tench: fine white bread alone, with a little water, will ſerve for roach and dace; and mutton ſuet, and ſoft new cheeſe, for a barbel. Strong cheeſe, with a little butter, and coloured yellow with ſaffron, will make a good winter paſte for a chub.

To make the Palmer and May-Fly.

In the firſt place, lay all the materials by the ſide of you, as follow: half a yard of fine round even ſilk-worm gut; half a yard of red ſilk, well waxed with wax of the ſame colour; a hook; a needle; ſome ſtrands off an oſtrich's feather, and a fine red hackle; then take the hook, and hold it by the bent between the fore-finger and thumb of your left hand, and with the point and beard of the hook not under your fingers, but nearly parallel with the tops of them; afterwards take

take the ſilk and hold it likewiſe about the middle of it with your hook, one part laying along the inſide of it to your left hand, the other to the right; then take that part of the ſilk which lies towards your right hand, and, holding that part towards your left tight along the inſide of the hook, whip that to the right three or four times round the ſhank of the hook towards the right hand; after which take the ſilk-worm gut, and lay either of its ends along the inſide of the ſhank of the hook, till it come near the bent of it; then hold the hook, ſilk, and gut, tight between the fore-finger and thumb of your left hand, and afterwards give that part of the ſilk to your right hand three or four times more over both hook and gut till it comes near the end of the ſhank, and make a loop and faſten it tight; then whip it neatly again over both ſilk and gut, and hook, till it comes near the bent of the hook, after which make another loop, and faſten it again; then, if the gut ſhould reach further than the bent of the hook, cut it off, and your hook will be whipped on, and the parts of the ſilk hang from the bent of it.

Having proceeded ſo far, wax the longeſt end of the ſilk again, and take three or four ſtrands of an oſtrich's feather; and holding them and the hook as in the firſt poſition, the feathers to the left hand, and the roots of them in the bent of the hook, with the ſilk that you waxed laſt, whip them three or four times round; make a loop, and faſten them tight: then turning the ſtrands to the right hand, and twiſting them and the ſilk together with the fore-finger and thumb of your right-hand, wind them round the ſhank of the hook till you come to the place where you firſt faſtened, then make a loop, and faſten them again; if the ſtrands ſhould not be long enough to wind as far as is neceſſary round the ſhank, when the ſilk gets bare you muſt twiſt others on it. Having performed this, take your ſciſſars, and cut the body of the palmer into an oval form, that is, ſmall at the bent and the end of the ſhank, but full in the centre; do not cut too much of the dubbing off. Now both the ends of the ſilk are ſeparated, one at the bent, another at the end of the ſhank, wax them both again; then take the hackle, hold the ſmall end of it between the fore-finger and thumb of your left hand, and ſtroke the fibres of it with thoſe of your right, the contrary way from which they are formed; hold your hook as in the firſt poſition, and place the point of the hackle in its bent, with that ſide which grows neareſt the cock upwards; and then whip it tight to the hook; but in faſtening it, tie as few fibres in as you can poſſibly avoid: the hackle being faſt, take it by the great end, and, keeping the ſide neareſt the cock to the left hand, begin with your right hand to wind it up the ſhank upon the dubbing; ſtopping every ſecond turn, and holding what you have wound tight with your left fingers, whilſt with the needle you pick out the fibres you will unavoidably take in; proceed in this manner till you come to the place where you firſt faſtened, and where an end of the ſilk is; then clip off thoſe fibres of the hackle which you held between the finger and thumb, cloſe to the ſtem; and hold the ſtem cloſe to the hook; after that take the ſilk in your right hand, and whip the ſtem very faſt to the hook; then make a loop, and faſten it tight: take your penknife, and, if that part of the ſtem next the ſhank of the hook is as long as that of the hook which is bare, pare it fine, wax your ſilk, and bind it neatly on the remaining bare part of the hook; then faſten the ſilk tight, and ſpread ſome ſhoe-maker's wax very lightly on your laſt binding; after that clip off the ends of the remaining ſilk, both at the ſhank and bent of the hook, and all fibres that ſtart or ſtand ill-conditioned, and the whole is completed. This is called the palmer-fly, or plain hackle, and may, inſtead of the oſtrich's feather above-mentioned, be dubbed with black ſpaniel's fur, and is an excellent killer. There are three more palmers, which are all to be made in the ſame manner as I have laid down, only with different articles, which are as follow: When you make the palmer-fly, ſuit the colour of the ſilk to the hackle you dub with; a dun hackle requires yellow ſilk; a black hackle, ſky-blue ſilk; a brown or red hackle, red ſilk; when you make flies that are not palmers, dub with ſilk that reſembles the colour moſt predominant in the fly; and, in making your flies, remember to mix bear's hair and hog's down with your other dubbing, becauſe they repel the water; make your flies always in hot ſun-ſhiny weather, for your waxed ſilk will then draw kindly, and when you take the dubbing to imitate a fly always wet it, and then you will be perfect in your imitation; for, though the dubbing when dry may ſuit, when it is wet it may be quite another colour. Martern's fur is the beſt yellow you can uſe.

Great Palmer, or *Hackle*. Dubbed the ſame as the plain hackle with the ſtrands off an oſtrich's feather, or a black ſpaniel's fur, and warped with red peacock's hackle untrimmed, that is, leaving the whole length of the hackle ſtaring out (for ſometimes the fibres of the hackle are to be ſhortened all over, ſometimes barbed only a little, and ſometimes cloſe underneath) leaving the whole length of fibres on the top or back of the fly, which makes it ſwim better, and, on a whirling round water, kills great fiſh.

Golden Palmer, or *Hackle*. The ſame dubbing, ribbed with gold twiſt, and a red hackle over all.

Silver Hackle. Made with a black body alſo, ſilver twiſt over that, and a red hackle over all.

The variation that is to be obſerved in making the gold and ſilver palmers, is this, that, when you whip the end of the hackle to the bent of the hook, you muſt alſo do the ſame to the gold or ſilver twiſt, and firſt wind either of them on the dubbing, obſerving that they lie flat on it, and then faſten off; afterwards proceed with the hackle as directed: or you may wind the hackle on the dubbing firſt, and rib the body with either of the twiſts afterwards.

Theſe are the ſtandard hackles in fly-fiſhing, and are taken any month in the year from nine to eleven in the morning, and from one to three in the afternoon, and upon any water; though you muſt have different ſizes of them, and dubbed with different colours, that you may always be able to ſuit either a clear or dark water, or a bright or cloudy atmoſphere; obſerving that ſmall light-coloured flies are for clear waters and ſkies, and the larger for dark and cloudy ones. The angler

ſhould

ſhould always try the palmers firſt, when he fiſhes in a river that he is unaccuſtomed to; even in that which he conſtantly uſes, without he knows what fly is on the water, and they ſhould not be changed till he does.

Salmon Fishing.

The female ſalmon is diſtinguiſhed from the male becauſe its noſe is longer and more hooked, its ſcales not ſo bright, and its body ſpeckled over with dark-brown ſpots; its belly flatter, and its fleſh not ſo red; more dry, and leſs delicious to the taſte. You muſt fiſh for him as for a trout, with a worm, fly, or minnow; a lob-worm is an excellent bait for him, well ſcoured in moſs, which makes it tough, clear, and lively. When you have ſtruck him, he will plunge and bounce in the water very much; therefore it is neceſſary to have a ſtrong rod, ringed the ſame as a trolling rod, and a winch with a ſtrong line on it forty yards long, with which length, and proper playing him, you may kill the largeſt ſized one. He has not a conſtant reſidence like a trout, but removes often, and you ſhould always angle for him as near the ſpring head as poſſible, in the deepeſt and broadeſt parts of the river, near the ground. Put two large lob-worms on at a time, and you may fiſh without a float, that is, with a running line. Let one yard next to your hook be gimp, and your hook a proper ſized ſalmon hook.

The Trout.

The trout is a fine freſh-water fiſh, ſpeckled with red and yellow; coming in and going out of ſeaſon with the buck, and ſpawning in the cold months of *October* and *November*, whereas all other fiſhes ſpawn in the hot ſummer months. There are ſeveral ſpecies of this fiſh, all valued very much: but the beſt are the red and yellow: and of theſe the female, diſtinguiſhed by a leſs head and deeper body, is preferred; by the largeneſs of their backs you may know when they are in ſeaſon, which may ſerve as a rule for all other fiſhes. All the winter long they are ſick, lean, and unwholeſome, and frequently louſy. As the ſpring advances, deſerting the ſtill deep waters, they repair to the gravelly ground, againſt which they continue to rub, till they have got rid of their lice, which are a kind of worm, with large heads; from that time they delight to be in ſharp ſtreams, and ſuch as are very ſwift; where they lie in wait for minnows, *May*-flies, &c. The latter part of *May* they are in the higheſt perfection. He is uſually caught with a worm, minnow, or fly, either natural or artificial; the different baits for him are the earth-worm, dung-worm, and the maggot, or gentle, but the beſt are the lob-worm and brandling. His haunts are, in purling-brooks, running very ſwiftly over chalk-ſtones, gravel, &c. He is oftener taken in the ſide of the ſtream than in it, though the large ones are often caught in the deepeſt part of it. He delights to ſhelter himſelf behind large ſtones, or ſmall banks, that hang over the river, and which the ſtream runs againſt and creates a foam; alſo in the eddies between two ſtreams; his hold is uſually under the roots of trees, and in hollow banks in the deepeſt parts of rivers. When you angle for him at the ground, let the link of your line, next the hook, be the beſt ſilk-worm gut you can provide; and have a nice elaſtic rod which will enable you to ſtrike true, and to feel him when he bites. Angle for him with a running line, and begin at the upper part of the ſtream, carrying your line with an upright hand, and from the hook, leading your line according to the ſwiftneſs of the ſtream. If you bait either with one or two worms, follow the manner of baiting with them which I have laid down in the rules, and you will run on the ground without being entangled.

There is a very killing method likewiſe for a large trout: make a pair of wings of the feather of a land-rail, and point out your hook with one or more caddices; the hook ſhould be briſtled, that is, when you whip on your hook, faſten a hog's briſtle under the ſilk, with the end ſtanding out about a ſtraw's breadth at the head of the hook, from under the ſilk, and pointing towards the line, by which means the head of the caddice will be kept cloſe to the wings; angle with a rod about five yards long, and a line about three; caſt the wings and caddice up the ſtream, which drives it down under the water towards the lower part of the hole; then draw it up the ſtream very gently, though irregularly, at the ſame time ſhaking your rod, and in a few caſts you will be ſure to hook him, if there is one in the hole. You may angle the ſame way with two brandlings. If you uſe two caddices with the wings, run your hook in at the head and out at the neck of the firſt, and quite through the other from head to tail.

The minnow is the moſt excellent of all baits for the trout: when you fiſh for one, chooſe the whiteſt, and middle-ſized ones, theſe being the beſt, and you muſt place them on the hook in ſuch a manner, that being drawn againſt the ſtream he may turn round. The beſt way of baiting with a minnow is this: put your hook in at his mouth, and out at his gill, drawing it through about three inches; then put the hook again into his mouth, and let the point and beard come out at his tail; then tie the hook and his tail about with a fine white thread, and let the body of the minnow be almoſt ſtrait on the hook; then try if it turns well, which it cannot do too faſt. Angle with the point of your rod down the ſtream, draw the minnow up the ſtream by little and little, near the top of the water. When the trout ſees the bait he will come moſt fiercely at it, but be careful not to ſnatch it away, which at firſt you may be apt to do; and never ſtrike till he has turned with the bait. In this way of angling, a ringed rod is to be always uſed, with a winch for your line, which ſhould have two or three ſwivels on it; by which means the minnow will ſpin the better.

The Grayling.

The haunts of the grayling are nearly the ſame as the trout; and in fiſhing for either of them, you may catch both. They ſpawn the beginning of *April*, when they lie moſtly in ſharp ſtreams; in *December* he is in his prime, at which time his head and gills are blackiſh, and his belly dark-grey, ſtudded with black ſpots. He bites very freely, but is often loſt when ſtruck, his mouth being very tender. Angle for him about mid-water, he being much more apt to riſe than deſcend; and when you angle for him alone and not for the trout alſo, uſe a quill float, with the bait about

ſix or ſeven inches from the ground. He takes brandlings, gilt-tails, meadow-worms, gentles, &c. but the moſt excellent bait for him in *March* or *April* is the tag-tail.

The CARP.

Patience is highly neceſſary for every one who angles for carp, on account of their ſagacity and cunning; their haunts are in the deepeſt parts of ponds and rivers, and in the latter where the ſtream runs low. When the weather in *April*, *May*, *June*, *July*, and *Auguſt*, is hot and fine, you cannot be too early or late at the ſport. He ſeldom refuſes the red-worm in *April*, the caddice in *May*, or the graſshopper in *June*, *July*, and *Auguſt*. You muſt angle for him with a ſtrong rod and line, a quill float and ſtrong gut at bottom; the hook in the medium of ſize; it being a leather-mouthed fiſh, he ſeldom breaks his hold, if your tackle is ſtrong, and you play him properly. But whenever you intend to fiſh for him particularly, and in good earneſt, over-night lay in a ground bait of garbage, as chicken's guts, blood mixed with cow-dung, or any coarſe paſte: alſo ale-grains and blood incorporated with clay, and at the ſame time that you throw any of theſe ground-baits in, plumb the ground to two depths (for it is beſt to angle for carps with two rods) one about mid-water, the other four or five inches above the ground. The next morning lay your lines in very cautiouſly, and ſucceſs will attend you. Gentles are very good bait for carp, alſo a paſte made of honey and bread, and one made with bread and water alone, tinctured with red-lead. A green-pea is alſo a very good bait.

The BREAM. See article BREAM.

The PIKE.

The pike likes a ſtill, ſhady, unfrequented water, and uſually lies amongſt or near weeds; ſuch as flags, bulruſhes, candocks, reeds, or in the green fog that ſometimes covers ſtanding waters, though he will ſometimes ſhoot out into the clear ſtream. He is ſometimes caught at the top, and in the middle, and often, eſpecially in cold weather, at the bottom. Pikes are called jacks till they become twenty-four inches long.

The bait for a pike, are a ſmall trout, the loach and miller's thumb, the head-end of an eel, with the ſkin taken off below the fins, a ſmall jack, a lob-worm, and in winter the fat of bacon. And, notwithſtanding what others ſay againſt baiting with a perch, it is confidently aſſerted, that pikes have been taken with a ſmall perch, when neither a roach nor a bleak would tempt them.

Obſerve that all your baits for pike muſt be as freſh as poſſible. Living baits you may take with you in a tin-kettle, changing the water often; and dead ones ſhould be carried in freſh bran, which will dry up the moiſture that otherwiſe would affect and rot them.

Obſerve that, in trolling, the head of the bait-fiſh muſt be at the bent of the hook: whereas, in fiſhing at the ſnap, the hook muſt come out at or near his tail. But the eſſential difference between theſe two methods is, that in the former the pike is always ſuffered to pouch or ſwallow the bait, but in the latter you are to ſtrike as ſoon as he has taken it.

The rod for trolling ſhould be about three yards and a half long, with a ring at the top for the line to run through; you may fit a trolling-top to your fly rod, which need only be ſtronger than the common fly-top.

Let your line be of green or ſky-coloured ſilk, thirty yards in length, which will make it neceſſary to uſe the winch, with a ſwivel at the end.

The common trolling-hook for a living bait conſiſts of two large hooks, with one common ſhank, made of one piece of wire, of about three-quarters of an inch long, placed back to back, ſo that the points may not ſtand in a right line, but incline ſo much inwards as that they with the ſhank may form an angle little leſs than equilateral. At the top of the ſhank is a loop left in the bending the wire, to make the hook double, through which is put a ſtrong twiſted braſs wire of about ſix inches long: and to this is looped another ſuch link, but not ſo looſe that the hook and the lower link may have room to play: to the end of the line faſten a ſteel ſwivel.

But there is a ſort of trolling-hook different from that already deſcribed, and to which it is thought preferable, which will require another management; this is no more than two ſingle hooks tied back to back with a ſtrong piece of gimp between the ſhanks; in the whipping the hooks and the gimp together, make a ſmall loop, and take into it two links of chain of about an eighth of an inch diameter; and into the lower link, by means of a ſmall ſtaple of wire, faſten by the greater end, a bit of lead of a conical figure, and ſomewhat ſharp at the point. Theſe hooks are to be had at any fiſhing-tackle ſhops ready fitted up.

This latter kind of hook is to be thus ordered, viz. put the lead into the mouth of the bait-fiſh, and ſew it up, the fiſh will live ſome time; and, though the weight of the lead will keep his head down, he will ſwim with near the ſame eaſe as if at liberty.

But if you troll with a dead-bait, as ſome do, for a reaſon which the angler will be glad to know, viz. that a living bait makes too great a ſlaughter among the fiſh, do it with a hook, of which the following contains a deſcription.

Let the ſhank be about ſix inches long, and leaded from the middle as far as the bent of the hook, to which a piece of very ſtrong gimp muſt be faſtened by a ſtaple, and two links of chain; the ſhank muſt be barbed like a dart, and the lead a quarter of an inch ſquare; the barb of the ſhank muſt ſtand like the fluke of an anchor, which is placed in a contrary direction to that of the ſtock. Let the gimp be about a foot long, and to the end thereof fix a ſwivel: to bait it, thruſt the barb of the ſhank into the mouth of the bait-fiſh, and bring it out at the ſide near the tail: when the barb is thus brought through, it cannot return, and the fiſh will lie perfectly ſtraight, a circumſtance that renders the trouble of tying the tail unneceſſary.

There is yet another ſort of trolling-hook, which is, indeed, no other than what moſt writers on this ſubject have mentioned; whereas the others, here deſcribed, are late improvements: and this is a hook either ſingle

or double, with a long ſhank, leaded about three inches up the wire with a piece of lead about a quarter of an inch ſquare at the greater or lower end; fix to the ſhank an armed wire about eight inches long: to bait this hook thruſt your wire into the mouth of the fiſh, quite through his belly, and out at his tail, placing the wire ſo as that the point of the hook may be even with the belly of the bait fiſh, and then tie the tail of the fiſh with ſtrong thread to the wire: ſome faſten it with a needle and thread, which is a neat way.

Both with the troll and at the ſnap, cut away one of the fins of the bait-fiſh cloſe at the gills, and another behind the vent on the contrary ſide, which will make it play the better.

The bait being thus fixed, is to be thrown in, and kept in conſtant motion in the water, ſometimes ſuffered to ſink, then gradually raiſed; now drawn with the ſtream, and then againſt it, ſo as to counterfeit the motion of a ſmall fiſh in ſwimming. If a pike is near, he miſtakes the bait for a living fiſh, ſeizes it with prodigious greedineſs, goes off with it to his hold, and in about ten minutes pouches it. When he has thus ſwallowed the bait you will ſee the line move, which is the ſignal for ſtriking him; do this with two ſtrorg jerks, and then play him.

The other way of taking them, that is, with the ſnap, is thus;

Let the rod be twelve feet long, very ſtrong and taper, with a ſtrong loop at top to faſten your line to; your line muſt be about a foot ſhorter than the rod, and much ſtronger than the trolling line.

And here it may not be improperly obſerved, that there are two ways of ſnapping, viz. with the live and with the dead ſnap.

For the live ſnap there is no kind of hook ſo proper as the double-ſpring hook. To bait it, nothing more is neceſſary than to hang the bait-fiſh faſt by the back-fin to the middle-hook, where he will live a long time.

Of hooks for the dead-ſnap there are many kinds. The plate is a repreſentation of one, which, after repeated trials, has been found to excel all others hitherto known; the deſcription and uſe of it is as follows, viz. Whip two hooks, of about three-eighths of an inch in the bent, to a piece of gimp in the manner directed for the trolling-hook. Then take a piece of lead of the ſame ſize and figure as directed for the trolling-hook above-mentioned, and drill a hole through it from end to end; to bait it, take a long needle, or wire; enter it in at the ſide, about half an inch above the tail, and with it paſs the gimp between the ribs and ſkin of the fiſh, bring it out at its mouth; then put the lead over the gimp, draw it down into the fiſh's throat and preſs his mouth cloſe, and then, having a ſwivel to your line, hang on the gimp.

In throwing the bait obſerve the rules given for trolling; but remember, that, the more you keep it in motion, the nearer it reſembles a living fiſh.

When you have a bite, ſtrike immediately the contrary way to that which the head of the pike lies, or to which he goes with the bait; if you cannot find which way his head lies, ſtrike upright with two ſmart jerks, retiring backwards as faſt as you can, till you have brought him to a landing place, and then do as before directed.

As the pike ſpawns in *March*, and before that month rivers are ſeldom in order for fiſhing, it will hardly be worth while to begin trolling till *April*; after that, the weeds will be apt to be troubleſome. But the prime month in the year for trolling is *October*, when the pikes are fattened by their ſummer's feed, the weeds are rotted, and by the falling of the waters the harbours of the fiſh are eaſily found.

Chooſe to troll in clear, and not muddy, water, and in windy weather, if the wind be not eaſterly.

Some uſe in trolling and ſnapping two or more ſwivels to their line, by means whereof the twiſting of the line is prevented, the bait plays more freely, and, though dead, is made to appear as if alive; which, in rivers, is doubtleſs an excellent way: but thoſe who can like to fiſh in ponds or ſtill waters, will find very little occaſion for more than one.

The pike is alſo to be caught with a minnow, for which method take the following directions:

Get a ſingle hook, ſlender, and long in the ſhank; let it reſemble the ſhape of a ſhepherd's crook; put lead upon it, as thick near the bent as will go into the minnow's mouth; place the point of the hook directly up the face of the fiſh; let the rod be as long as you can handſomely manage, with a line of the ſame length, caſt up and down, and manage it as when you troll with any other bait: if when the pike has taken your bait, he runs to the end of the line before he hath gorged it, do not ſtrike, but hold ſtill only, and he will return back and ſwallow it; but, if you uſe that bait with a troll, I rather prefer it before any bait that I know.

In landing a pike great caution is neceſſary, for his bite is eſteemed venomous: the beſt and ſafeſt hold you can take of him is by the head, in doing which, place your thumb and finger in his eyes.

If you go any great diſtance from home, you will find it neceſſary to carry with you many more things than are here enumerated, moſt of which may be very well contained in a wicker pannier of about twelve inches wide, and eight high, and put into a hawking bag. The following is a liſt of the moſt material ingredients: a rod with a ſpare top, lines coiled up, and neatly laid round in flat boxes; ſpare links, ſingle hairs, waxed thread, and ſilk; plummets of various ſizes, floats of all kinds, and ſpare caps: worm-bags and a gentle-box, hooks of all ſizes, ſome whipped to ſingle baits; ſhot, ſhoemaker's wax, in a very ſmall gallipot covered with a bit of leather; a clearing ring, tied to about ſix yards of ſtrong cord, the uſe of this is to diſengage your hook when it has caught a weed, &c. in which caſe take off the butt of your rod and ſlip the ring over the remaining joints, and, holding it by the cord, let it gently fall; a landing net, the hoop whereof muſt be of iron, and made with joints to fold, and a ſocket to hold a ſtaff. Take with you alſo ſuch baits as you intend to uſe. That you may keep your fiſh alive, be provided with a ſmall hoop-net to draw cloſe to the top, and never be without a ſharp knife and a pair of ſciſſars; and if you

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mean to uſe the artificial fly, have always your fly-hook with you.

And, for the more convenient keeping and carriage of lines, links, ſingle hairs &c. take a piece of parchment or vellum, ſeven inches by ten; on the longer ſides ſet off four inches, and then fold it croſs-ways, ſo as to leave a ſlip of two inches, or thereabout; then take eight or ten pieces of parchment, of ſeven inches by four, put them into the parchment or vellum, ſo folded, and ſew up the ends; then cut the flap rounding, and fold it down like a pocket-book; laſtly, you may, if you pleaſe, bind the ends and round the flap with red tape.

And having ſeveral of theſe caſes, you may fill them with lines, &c. proper for every kind of fiſhing; always remembering to put into each of them a gorger, or ſmall piece of cane, of five inches long, and a quarter of an inch wide, with a notch at each end; with this, when a fiſh has gorged your hook, you may, by putting it down his throat till you feel the hook, and holding the line tight while you preſs it down, eaſily diſengage it.

And if you ſhould chance to break your top, or any other part of your rod, take the following directions for mending it:—Cut the two broken ends with a long ſlope, ſo that they may fit neatly together; then ſpread ſome wax very thin on each ſlope, and, with waxed-thread, or ſilk, according as the ſize of the broken part requires, bind them very neatly together: to faſten off, lay the fore-finger of your left hand over the binding, and with your right, make four turns of the thread over it: then paſs the end of your thread between the under-ſide of your finger and rod, and draw your finger away; laſtly, with the fore-finger and thumb of your right hand, take hold of the firſt of the turns, and, gathering as much of it as you can, bind on till the three remaining turns are wound off, and then take hold of the end, which you had before put through, and then draw cloſe.

For whipping on a hook take the following directions; place the hook between the fore-finger and thumb of your left hand, and, with your right, give the waxed-ſilk three or four turns round the ſhank of the hook: then lay the end of the hair on the inſide of the ſhank, and, with your right hand whip down; when you are about four turns off the bent of the hook, take the ſhank between the fore-finger and thumb of your hand, and place the end of the ſilk cloſe by it, holding them both tight, and leaving the end to hang down; then draw the other part of the ſilk into a large loop, and, with your right hand turning backwards, continue the whipping for four turns, and draw the end of the ſilk, which has hung down under the root of your left thumb, cloſe, and twiſt it off.

To tie a water-knot, lay the end of one of your hairs about five inches or leſs over that of the other, and through the loop, which you would make to tie them in a common way, paſs the long and the ſhort end of the hairs, which will lie to the right of the loop, twice, and wetting the knot with your tongue draw it tight, and clip off the looſe hair.

The ſtraw-worm or ruffcoat, I believe, is the moſt common of any. It is found in the river *Colne*, near *Uxbridge*; the *New River*, near *London*; the *Wandle*, which runs through *Carſhalton*, in *Surrey*, and in moſt other rivers. I am aſſured reſpecting the ſtraw-worm, that it produces many and various flies, namely, that which is called about *London* the withy-fly, aſh-coloured duns of ſeveral ſhapes and dimenſions, as alſo light and browns; all of them affording great diverſion in northern ſtreams.

To preſerve caddice, graſshoppers, caterpillars, oak-worms, or natural flies, the following is an excellent method: cut a round bough of fine green-barked withy, about the thickneſs of one's arm, and, taking off the bark about a foot in length, turn both ends together, into the form of a hoop, and faſten them with a pack-needle and thread; then ſtop up the bottom with a bung-cork: into this put your baits, tie it over with a colewort-leaf, and, with a red-hot wire bore the bark full of holes, and lay it in the graſs every night; in this manner caddice may be kept till they turn to flies. To graſshoppers you may put graſs.

But that I may not convey a wrong idea; I conſider the ruffcoat to be a ſpecies of the caddice incloſed in a huſk about an inch long, ſurrounded by bits of ſtone, flints, gravel, &c. nearly equal in their ſize, and moſt curiouſly compacted together. This fly is called in the north, large light-brown; in *Ireland* and ſome other places it has the name of the flame-colour brown; and in moſt parts of *England*, the fœtid light-brown.

For your float, in ſlow ſtreams, a neat round gooſe-quill is proper; but for deep or rapid rivers, or in an eddy, the cork, ſhaped like a pear, is indiſputably the beſt; which ſhould not in general exceed the ſize of a nutmeg. Let not the quill which you put through it be more than half an inch above and below the cork; and this float, though ſome prefer a ſwan's-quill, has great advantage over a bare-quill; for the quill being defended from the water by the cork, does not ſoften, and the cork enables you to lead your line ſo heavily, as that the hook ſinks almoſt as ſoon as you put it into the water; whereas, when you lead but lightly, it does not get to the bottom till it is near the end of your ſwim. In leading your line, be careful to balance them ſo nicely, that the leaſt touch will ſink them; ſome uſe for this purpoſe lead in the ſhape of a barley-corn, but, in my opinion there is nothing better to lead with than ſhot, which you ſhould always be provided with, ready cleft; remembering, that, when you fiſh fine, it is better to have on your line a number of ſmall than a few large ſhot.

By whipping the end of the quill round the plug with fine ſilk, well waxed, it not only prevents the water from getting in, but greatly preſerves it.

In fiſhing with a float, your line muſt be about a foot ſhorter than your rod; for, if it is longer, you cannot ſo well command your hook when you come to diſengage the fiſh.

Perch and chub are caught with a float, and alſo gudgeons, and ſometimes barbel and grayling.

For carp and tench, which are ſeldom caught but in ponds, uſe a very ſmall gooſe or duck-quill float; and

for ground bait, throw in every now and then a bit of chewed bread.

Some may chuſe to make their own lines; in which caſe, if they prefer thoſe twiſted with the fingers, they need only obſerve the rules given by the article for that purpoſe.

When you uſe the fly, you will find it neceſſary to continue your line to a greater degree of fineneſs, in order to make which, refer to the article ANGLING-LINE.

The PERCH.

This fiſh is bow-backed, like a hog, and armed with ſtiff griſtles, and his ſides with dry thick ſcales. He is a very bold biter, which appears by his daring to venture upon one of his own kind, with more courage than even the ravenous luce. He ſeldom grows above two feet long, ſpawns once a year, either in *February* or *March*, and bites beſt in the latter end of the ſpring. His haunts are chiefly in the ſtreams not very deep, in hollow banks, a gravelly bottom, and at the turning of an eddy. If the weather is cool and cloudy, and the water a little ruffled, he will bite all day long, eſpecially from eight till ten in the morning, and from three till ſix in the evening. If there are thirty or forty of them in a hole, they may all be caught at one ſtanding; they are not like the ſolitary pike, but love to accompany one another, and ſwim in ſhoals, as all fiſhes which have ſcales are obſerved to do. His baits are minnows, little frogs, or brandlings, if well ſcoured; when he bites give him time enough, and you can hardly give him too much, for he is not a leather-mouthed fiſh; unleſs you do, he will often break his hold. Angle for him, if you bait with a brandling, with an indifferent ſtrong line, and gut at bottom, and about five inches from the ground. But if you rove for him, with a minnow or frog, (which is a very pleaſant way,) then your line ſhould be ſtrong, and the hook armed with gimp, and the bait ſwimming at mid-water, ſuſpended by a cork float. I, for my own part, always uſe a troll, that in caſe a pike ſhould take it, I may be prepared for him. Keep your minnows in a tin kettle, and, when you bait with one, ſtick the hook through his upper lip, or back fin. If you uſe the frog, ſtick it through the ſkin of his hind-leg. Theſe directions being carefully attended to, will inſure the angler ſucceſs.

The TENCH.

This is a delicious freſh-water fiſh, has ſmall ſcales, yet very large and ſmooth fins, a red circle about the eyes, and a little barb hanging at each corner of his mouth. His haunts are chiefly in ponds amongſt weeds; he thrives very ill in clear waters, and covets to feed in foul ones; yet his fleſh is nouriſhing and pleaſant. They ſpawn the beginning of *July*: the proper time to angle for them is early and late in the months of *May* and *June*, the latter end of *July*, and in *Auguſt*. You muſt uſe a ſtrong line with a gut at bottom; a ſmall quill-float; the depth about two feet. He bites beſt at red worms, if you dip them firſt in tar, at all ſorts of paſtes made up with ſtrong-ſcented oils, and at one made with the inſide of a roll and honey. Alſo at cad, lob, flag, and marſh, worms, gentles, and ſoft-boiled bread-grain.

The FLOUNDER.

You may fiſh all day for the flounder, either in ſwift ſtreams or in the ſtill deep; but beſt in the ſtream, in the months of *April*, *May*, *June*, and *July*. Your line muſt be a ſingle-haired one, with a ſmall float. Let your bait touch the ground, which may be any ſort of ſmall worms, waſps, or gentles. He being a fiſh but ſeldom taken with rod and line, to enlarge on the ſubject would be totally unneceſſary.

The CHUB.

This fiſh is ſpoken of under the article CHUB. As is alſo the BARBEL.

The ROACH

Is by no means a delicate fiſh; the river ones are much better than thoſe bred in ponds. They ſpawn in *May*, and will bite all day long, if the weather is not in either of the extremes, on the top of the water. Their haunts are chiefly in ſandy or gravelly deep waters, delighting to be in the ſhade. In *April* the baits are cads and worms; in ſummer white ſnails or flies; in autumn a paſte made of fine white-bread, moulded in your hands with water, and a little cotton added to it, to keep it from waſhing off the hook; in winter gentles are the beſt bait for him. You ſhould fiſh with a line made of ſingle hairs, a quill-float, and the lead about a foot from the hook; and, when you angle for roach, always caſt in the ground-bait, made of bran, clay, and bread, incorporated together: and, when you angle with tender baits, ſtrike at the leaſt nibble that is apparent. Sprouted malt, the young brood of waſps, bees dipt in blood, and the dried blood of ſheep, are noſtrums in this kind of angling.

The DACE, DARE, *and* EELS,

Are obſerved under their reſpective titles.

The GUDGEON.

The gudgeon affords the angler an amazing deal of diverſion; being one that bites very free, and when ſtruck is never loſt; becauſe he is a leather-mouthed fiſh. They ſpawn three or four times in the ſummer, and their feeding is like the barbel's, in the ſtreams, and on gravel; ſlighting all manner of flies. Their baits are, chiefly waſps, gentles, and cads, but the ſmall red-worm is beſt. When you angle for them, be provided with a gudgeon-rake, with which rake the ground every ten minutes; which gathers them together. A ſingle-haired line is beſt with a quill or cork float, according to the rapidity of the ſtream, and your bait on the ground. You may angle for him with a running line, by hand, without a float.

The POPE, *or* RUFF.

This fiſh is ſmall, and rarely grows bigger than a gudgeon; in ſhape very like the perch, but is better food. His haunts are in the deepeſt running parts of a gravelly river, the exact bottom whereof, having found by plumbing, bait your hooks with ſmall red-worms, or brandlings; for you may angle with two or three, and have excellent ſport. He bites very greedily, and as they ſwim in ſhoals, you may catch twenty, or thirty, at one ſtanding, in a cool gloomy day. Always

bait

bait the ground with earth, and uſe the ſame tackle as for the gudgeon.

The MINNOW, *or* PINK,

Is generally found in *March* or *April*, and remains till the cold weather compels it to retire to its winter-quarters. He is of a greeniſh or wavy ſky-colour, his belly very white, his back blackiſh, and is a moſt excellent bait for any of the fiſh of prey: namely, the pike, trout, perch, &c. His baits are ſmall red worms, waſps, cads, &c.

The LOACH, *or* LOCHE,

Is found in clear ſwift brooks, and rivulets, and his food is gravel. He is bearded like the barbel, and freckled with black and white ſpots. You may take him with a ſmall red-worm at ground; he delights to be near the gravel, therefore is hardly ever ſeen on the top of the water.

The BULL-HEAD, *or* MILLER'S-THUMB.

This fiſh, on account of its uglineſs, is in ſome places called the freſh-water devil; he has a broad head, and a large mouth, no teeth, but his lips are like a file, with which he nibbles at the bait. They ſpawn in *April*, and are full of ſpawn moſt of the ſummer; are chiefly in holes, or among ſtones in clear water; but, in winter, they lie in mud like the eel. The worſt of anglers may take this fiſh; for, if you look about the water in a hot day, you may ſee him ſunning himſelf on a ſtone; put your hook upon it, baited with a ſmall red worm, and he will take it directly. The taſte of this fiſh is good.

The STICKLEBACK, SHARPLING, *or* BANSTICKLE,

Is a ſmall prickly fiſh, and not worth the angler's notice, in regard to himſelf, but that he is an excellent bait for the trout, who will take it ſooner than the minnow. His pricks muſt be broken off, and baited according to the directions given for baiting the minnow, under the deſcription of the trout.

The GUINNIAD.

The guinniad, according to CAMDEN, and others, is peculiar to *Pemble-mere*, in *Cheſhire*. "The river *Dee*, (ſays this author,) which runs by *Cheſter*, ſprings in *Merionethſhire*, and, as it runs towards *Cheſter*, it paſſes through the ſaid *Pemble-mere*, which is a large water, and it is obſerved that, though the river *Dee* abounds with ſalmon, and *Pemble-mere* with guinniad, yet there are never any ſalmons caught in the mere, nor any guinniad in the river."

The RED-CHARR, *or* WELCH TORGOCH.

The red charr is a fiſh whoſe make is longer and more ſlender than that of a trout, for one of about eight inches long was no more than an inch and a half broad. The belly, about the breadth of half an inch, is painted with red, in ſome of a more lively, in others of a paler, colour, and in ſome, eſpecially the female, it is quite white. The ſcales are ſmall, and the lateral lines ſtraight. The mouth is wide, the jaws pretty equal, except the lower, which is a little ſharper, and more protuberant than the upper. The lower part of the fins are of a vermilion dye. The gills are quadruple, and it has teeth both in the jaws and on the tongue; in the upper jaw there is a double row of them. The ſwimming-bladder is like that of a trout; the liver is not divided into lobes; the gall-bladder is large; the heart triangular; the ſpleen ſmall and blackiſh: and the eggs of the ſpawn large and round. The fleſh more ſoft and tender than that of a trout, and when boiled can ſcarcely be allowed to be red. It is in the higheſt eſteem where known, and in *Wales* is accounted the chief diſh at the tables of people of faſhion.

The GUILT, *or* GILT CHARR,

Is proportionably broader than the trout, and the belly is more prominent; but its length, when greateſt, never exceeds twelve inches: the ſcales are ſmall, the colour of the back more lively than that of a trout, and is beautified with black ſpots: the belly and ſides, beneath the lateral line, are of a bright ſilver colour; the ſkull is tranſparent, and the ſnout blueiſh: it has teeth in the lower jaw, on the palate, and the tongue; the ſwimming bladder is extended the whole length of the back, and the gall-bladder is large. The fleſh of the gilt charr is red, and is counted ſo very delicious among the Italians, that they ſay it excels all other pond and ſea fiſh whatever; and they eſteem the nature of it ſo wholeſome, that they allow ſick perſons to eat it.

Principal Rivers for Fiſhing.

The principal rivers in *England* are the *Thames*, *Severn*, *Trent*, *Tine*, *Tweed*, *Medway*, *Tees*, *Dove*, *Iſis*, *Tame*, *Willey*, *Avon*, *Lea*, *Trevel*, *Nen*, *Welland*, *Darwent*, *Calder*, *Wharf*, *Nid*, *Don*, *Swale*, *Hull*, *Ouſe*, and *Are*. The rivers in *Wales* are reckoned above two hundred, the principal of which are the *Dee*, *Wye*, *Conway*, *Tivy*, *Chediayday*, *Cluid*, *Uſk*, *Tovy Taff*, and *Dovy*. Several rivers in *England* run under ground, and then riſe again, as a branch of the *Medway* in *Kent*; the *Mule* in *Surrey*; *Hans* in *Staffordſhire*; the little rivers *Allen* in *Denbighſhire*, and *Deveril* in *Wiltſhire*: the river *Reeall* hides itſelf under ground, near *Elmſley*, in the North-riding of *Yorkſhire*: at *Aſhwell* in *Bedfordſhire*, riſe ſo many ſources of ſprings that they ſoon drive a mill; at *Cheider*, near *Axbridge*, in *Somerſetſhire*, is a ſpring that drives twelve mills in a quarter of a mile. In the midſt of the river *Nen*, ſouth of *Peterborough*, in *Northamptonſhire*, is a deep gulph called *Medeſwell*, ſo cold, that in ſummer no ſwimmer is able to endure it, yet it is not frozen in the winter. But of theſe enough.

The ſix principal rivers are as follow:—

1. The *Thames*, compounded of two rivers, *Tame* and *Iſis*. The *Tame* riſes in *Bucks*, beyond *Tame* in *Oxfordſhire*, and the *Iſis* in *Cotſwold-hills*, near *Cirencester*, in *Glouceſterſhire*. They meet together about *Dorcheſter* in *Oxfordſhire*, and thence run united betwixt that county and *Bucks*, and between *Buckinghamſhire*, *Middleſex*, and *Eſſex*, on the one ſide, and *Surrey* and *Kent* on the other, wedding itſelf to the *Kentiſh Medway* in the very jaws of the ocean. This river is ſaid to feel the violence and benefit of the ſea more than any other river in *Europe*, ebbing and flowing twice a day more than ſixty miles.

2. The ſecond river of note is the *Severn*, which has its beginning in *Plinlimmon-hill* in *Montgomeryſhire*, and its end ſeven miles from *Briſtol*, waſhing in that ſpace

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the walls of *Shrewſbury*, *Worceſter*, *Glouceſter*, and divers other places and palaces of note. It receives greater rivers, and is farther navigable than the *Thames*, but does not equal it for the quantity and variety of fiſh.

3. The *Trent* (ſo called on account of the thirty different kinds of fiſh which are to be found in it, or becauſe it receives thirty ſmall rivers) has its fountain in *Staffordſhire*, and, gliding through the counties of *Nottingham*, *Lincoln*, *Leiceſter*, and *York*, augments the turbulent current of the *Humber*, the moſt violent ſtream of all the iſle. The *Humber* is not a diſtinct river, becauſe it has not a ſpring head of its own, but is rather the mouth or *æſtuarium* of divers rivers meeting together; among which, beſides the *Trent*, are the *Darwent* and *Ouſe*.

4. The *Medway*, a *Kentiſh* river, riſes near *Tunbridge*, paſſes by *Maidſtone*, runs by *Rocheſter*, and diſcharges itſelf into the mouth of the *Thames*, by *Sheerneſs*; a river chiefly remarkable for the dock at *Chatham*, where ſhips of the firſt rate are built and repaired for the uſe of the *Engliſh* navy.

5. The *Tweed*, the north-eaſt boundary of *England*, on whoſe banks is ſeated the ſtrong and almoſt impregnable town of *Berwick*.

6. The *Tine*, famous for *Newcaſtle* and its inexhauſtible coal-pits.

But to return to the *Thames*, of which, and the rivers that fall into it, I ſhall treat ſomewhat particularly, as they are more the ſeat for the diverſion of angling than any others. The higher an angler goes up the *Thames*, if within about four miles, the more ſport and the greater variety of fiſh he will meet with; but, as few *Londoners* go ſo far from home, I ſhall mention the beſt places for *Thames* angling from *London-bridge* to *Chelſea*.

But before I proceed any farther on this ſubject, it will be neceſſary to lay down ſome rules, which the angler muſt attend to.

If the air is cold and raw, the wind high, the water rough, or if the weather is wet, it is totally uſeleſs to angle in the *Thames*. But when the ſky is ſerene, the air temperate, and the water ſmooth, ſucceſs will attend you.

The proper hours for angling are from the time that the tide is half ebbed to within two hours of high-water, provided the land floods do not come down. Always pitch your boat under the wind; that is, if the wind be in the ſouth, then keep on the *Surrey* ſhore; if north, on the *London* ſide.

The beſt places for pitching a boat to angle in the *Thames*, are about one hundred and fifty yards from *York-ſtairs*; the *Savoy*, *Somerſet-houſe*, *Derſet ſtairs*, *Blackfriars-ſtairs*; the *Dung-wharf* near *Water-lane*, *Trig ſtairs*, and *Eſſex-ſtairs*. On the *Surrey* ſide, *Falcon-ſtairs*; *Barge-houſes*; *Cuper's* vulgo *Cupid's-ſtairs*; the *Windmill*, and *Lambeth*.

When you go to angle at *Chelſea*, on a calm fair day, the wind being in a right corner, pitch your boat almoſt oppoſite to the church, and angle in ſix or ſeven feet water, where, as well as at *Batterſea-bridge*, you will meet with plenty of roach and dace.

Mortlake Deeps is the next place where roach principally reſort, when the weeds are rotten: and here are good carp very often taken.

From the ſides of the *Aits*, oppoſite to *Brentford*, *Iſleworth*, and *Twickenham*, there is very good angling for roach, dace, gudgeons, and perch; very often you will meet with trout and carp.

Teddington Banks are remarkable for good gudgeons, roach, &c.

Kingſton-wick and *Kingſton* are famous for barbel, roach, and dace.

At *Hampton* and *Sudbury* there is good angling for barbel, roach, dace, chub, gudgeons, and ſkeggers: and from the *Aits* for trout and perch.

Walton Deeps and *Shepperton Pool* abound with large barbel and dace.

At and about *Windſor* is a vaſt variety of all ſorts of fiſh; but, if a man be found angling in another's water (without leave) he is fined very high by the court of that town, if he only catches a ſingle gudgeon, &c.

Of the rivers that empty themſelves into the *Thames*, and of others which are not far from it, I ſhall begin with thoſe on the north ſide.

1. *Ilford-river*, the upper part of which abounds with roach, dace, and ſome perch; but, between *Ilford* and the *Thames*, eſpecially about three miles from the town, there is pike.

2. *Woodford-river*, ſtored with perch, chub, roach, and dace.

3. *Stratford-river* affords the angler good diverſion for roach, dace, chub, perch, &c.

4. *Bow-river* has the ſame fiſh in it as the *Stratford-river*.

5. *Hackney-river*, having plenty of large barbel, chub, roach, dace, gudgeon, eels, and lampreys. In this river the barbels, eels, and gudgeons, are very fine.

6. *Waltham-river*, beſides large barbel, chub, roach, dace, gudgeon, and eels, has good ſtore of fine pike, and ſome carp.

7. The *New-river* is pretty well ſtored with chub, roach, dace, gudgeon, and eels.

8. *Brentford-river*, a good one formerly, but now much abuſed by poachers; but the angler may meet with ſome chub, roach, dace, and perch.

9. *Hounſlow-river*, well ſtored with roach, dace, perch, pike, and gudgeon.

The powder-mill-tail, near *Hounſlow*, is a very good place for angling.

10. *Colne-river*, abounding with chub, roach, dace, perch, trout, and pike.

11. *Uxbridge-river*, excellent for large eels and fat trouts: but, as the water is rented, not only leave muſt be obtained to angle in it, but you muſt pay ſo much per pound for what you kill. *Denham*, near *Uxbridge*, is a very famous place.

Having now done with the north ſide, I proceed to the ſouth of the *Thames*.

1. *Deptford-river*, now very much decayed, and has but a few fiſh in it, as roach, dace, and flounders: though by chance you may meet with a trout.

2. *Lewiſham-*

2. *Lewiſham-river*, in which are ſome good trouts, large roach, chub, gudgeon, perch, and dace.

3. *Wandſworth-river*, well ſtored with gudgeons, dace, flounders, perch, pike, and ſome carp and trouts: very large ſilver eels are often taken there.

4. *Mitcham-river*, its principal fiſhes are trouts.

5. *Martin-river*, for trouts alſo.

6. *Carſhalton-river*, abounding with trouts and other white fiſhes.

7. *Mouſey river*, yielding perch, jack, roach, dace, chub, gudgeons, eels, flounders, barbels, and trouts.

8. *Eſher-river*, good for jacks, perch, chub, roach, dace, gudgeons, eels, flounders, barbels, and trouts.

9. *Cobham-river*, ſtored with plenty of good trout, fat and large, as alſo dace, perch, chub, jacks, and gudgeons.

10. *Weybridge-river*, affording good diverſion for carp, ſome of which weigh eight or nine pounds; alſo jack, roach, dace, flounders, popes, large bleak, barbel, and gudgeons.

11. *Byfleet-river*, wherein are very large pikes, jack, and tench; perch, of eighteen inches long; good carp, large flounders, bream, roach, dace, gudgeons, popes, large chub, and eels.

The following are the moſt approved methods of making compounds to allure fiſh, ſo that they may be taken with eaſe:—

Mix the juice of houſeleek with nettles and cinquefoil chopped ſmall; rub your hands therewith, and diſtribute it in quantities in the water; put your hand into the water, and the fiſhes will ſuffer themſelves to be taken with eaſe.

Fiſh may be drawn into any place or part of a river, by throwing in the following compoſition:—Take goat's, bullock's, and ſheep's blood, which is found curdled among the entrails in the body of the animal freſh killed; pound well with theſe, thyme, marjoram, origan, flour, garlic, wine-lye, and ſuet, and let the whole be made into pills; theſe muſt be ſcattered into the pond diſcretionally, where the fiſh are wiſhed to come.

Pound nettles with joubarbe, and a ſmall quantity of quintefolium graſs; to theſe add wheat boiled in marjoram, and thyme water; pound the whole together, and drop it into the net.

Take heart-wort and ſlack-lime, make them into a paſte, which throw into ſtanding water; this will fix them, and cauſe them to be taken at pleaſure.

Make a paſte of cocolus indicus, cummin, old cheeſe, wine-lye, and wheat-flour; throw ſmall pieces of it into clear and undiſturbed parts of the pond or river, and every fiſh that ſwallows one of theſe pills will become ſo intoxicated as to ſwim upon the ſurface of the water, and ſuffer itſelf to be taken. This intoxication will go off in a ſhort time, therefore thoſe who uſe this method muſt take them quickly.

Take fiſher's berries, pound them in a mortar, and with water make them into a paſte; throw pills of this into the water, and it will have the ſame effect as the former.

Pound together marjoram, marigolds, wheat flour, and rancid butter, and it will allure fiſh of all kinds to the net.

Take gum ivy and put a good deal of it into a box made of oak, and chafe and rub the inſide of it with this gum. When you angle put three or four worms into it, but they muſt not remain there long; for if they do it will kill them; then take them out, and fiſh with them, putting more in their places, as you want them, out of your worm bag. Gum ivy is a tear which drops from the body of large ivy trees, being wounded, and is of a yellowiſh red colour, of a ſtrong ſcent, and ſharp taſte; that which is ſold in the ſhops is counterfeit, and good for nothing. Therefore, to get gum ivy, about Michaelmas, or in the ſpring, drive ſeveral great nails into large ivy ſtalks, wriggle the ſame till they become very looſe, and let them remain, and the gum will iſſue thereout. Alſo ſlit ſeveral great ivy ſtalks at the times above-mentioned, and viſit them once a month and gather the gum which flows from the wounded part. This will very much improve the angler's ſucceſs.

Take aſſa-fœtida three drachms, camphor one ditto, Venice turpentine one ditto, pound the whole together in a mortar, with ſome drops of the chemical oil of lavender, or ſpike. When you angle anoint eight inches of your line with it, next your hook, and it is excellent for a trout in muddy water, and for gudgeons in clear.

Diſſolve gum ivy in oil of ſpike, and anoint your bait for a pike with it, and he will take it the ſooner.

Take cat's fat, heron's fat, and the beſt aſſa-fœtida, of each two drachms, Mummy finely powdered ditto, cummin ſeed finely powdered two ſcruples, and camphor, galbanum, and Venice turpentine of each one drachm, and civet two grains. Make them, *ſecundum artem*, into a thinniſh ointment, with the chemical oils of lavender, anniſeed, and chamomile, and keep it in a narrow mouthed and well glazed gallipot, cloſe covered with a bladder and leather, and it will keep two years. When you want to uſe it, put ſome into a ſmall taper pewter box, and anoint your line with it, about eight or nine inches, from the hook, and when it is waſhed off repeat the unction.

Take freſh horſe dung, and put it into a bag, or net, throw it into the water, and the fiſh will gather about it.

Take quick ſilver, which put into a thick glaſs phial, faſten it to a packthread, and let it down to the bottom of the water in the night, eſpecially when the moon ſhines, and you will ſee a quantity of fiſh come together.

Put oil of chamomile into a phial, and when you would fiſh you muſt have ſome worms and kill them in the ſaid phial of oil, and bait your hooks with thoſe worms.

Boil barley in water till it burſts, then boil it with liquorice, a little mummy and honey; beat all together in a mortar, till it is ſtiff as paſte, which put into boxes cloſe ſtopped; when you would fiſh at any place, take about the quantity of a walnut of it, and boil in an earthen pot, with two handfuls of freſh barley,

barley, and a little liquorice, leaving it till it is almoſt dry; then throw it into the places where you would have the fiſh come, and they will gather there.

Take the herb dragon-wort, from which extract the juice, with it rub your hands, and the fiſh will come near, and ſuffer themſelves to be taken, holding them in the water; the proper hour for fiſhing is from five till ſix in the morning.

Take ſome of a heron's fleſh, and put it into a bottle cloſe covered with clay, or wax, with ſome muſk, amber, and civet, put the pot into a kettle full of water, and make it boil till you are ſure the ſaid fleſh is converted into oil, then take out the bottle, and pour out the oil; with which rub your line, and all the fiſh will come to be taken.

Take fat of a heron, mummy, galbanum, of each two drachms, muſk one grain, aqua vitæ two ounces, mix all together in an earthen porringer over a gentle fire, and ſtir till it is thick; keep it in a leaden porringer, and with it rub the hook, or the ends of the line, or cork, and the fiſh will come ſo that you may take them with your hands.

Take the belly of a heron, that is, the bowels or entrails, cut in pieces, and put it into a glaſs phial, which ſtop cloſe with wax: then bury it in hot horſe-dung, and let it turn to oil, which will be within ten or fifteen days; then take an ounce of aſſa-fœtida, and mix it with the ſaid oil, it will all thicken like honey, with which anoint your line, ſtick, or rod, or elſe the bait you put upon the hook.

For all the neceſſary Inſtructions for HOOKS, *&c. ſee the Articles* ANGLING ROD, *&c.*

An Epitome of the whole Art of FISHING, wherein is ſhewn (at one view) the harbours, ſeaſons, and depths, for catching all ſorts of fiſh uſually angled for; alſo, the various baits for each, ſo digeſted, as to contain the eſſence of all the treatiſes ever wrote on the ſubject, exempt from their ſuperfluities, which tend more to perplex than inſtruct.

Names.	Where found.	Seaſon.	Time to ang.	Depth from ground.	Proper Baits.			
					Flies No.	Paſtes No.	Worms No.	Fiſh and Inſects No.
Bream	rough ſtr. river, or mid. pond	April to Mich.	Sun riſe to 9 3 to Sun ſet	touch ground	——	1 3	1 to 7	No. 8
Barbel	gravel banks in currents under bridges	April to Aug.	very early or late	ditto	——	2	2 6 7	——
Bleak	ſandy bottom deep rivers, ſhips ſterns*	May to Oct.	all day	6 inches from bottom	1 2	2	2 3 8	——
Carp	ſtill deep mud bottom pond or river	May to Aug.	Sun riſe to 6 3 to Sun ſet	3 inches from bottom hot weather mid water	——	1 3 4	1 2 3 4 7	——
Chub or Chevin	ditto	May to Dec.	ditto	ditto	1 to 5	2	1 2 4 5	7 8
Dace	ſandy bottom deep rivers, ſhips ſterns*	May to Oct.	all day	6 to 12 inches from bottom	ditto	3 4	1 to 5 & 8	——
Gudgeon	gravel ſhoals	May to Oct.	ditto	near or on bottom	——	ditto	2 8	——
Pike	near clay banks	All the year	ditto	mid water	who. ſtr. and ſnap	line float hook fixt	—— on ſhore	1 2 3 4 5 6 7
Pearch	river in ſtream, gravel or weedy	May to Aug.	5. riſe to 10 2 to Sun ſet	ditto		1	3 5 7 8	1 6
	pond deepeſt pt. bottom	Aug. to May		6 inches from bottom	2			
Pope	deep holes in rivers	May to Oct.	mid. day	ditto	5 ——	——	all	——
Roach	ſandy bottom deep rivers, ſhips ſterns*	May to Oct.	all day ditto	5 to 12 inches	1 2 4 5	3 4	ditto	8
Salmon	deep rivers	Mar. to Sept.	3 to 9, 3 to 6	mid way to the bottom	all large	——	1 5 6 7	1
Smelts	ſhips ſterns* and docks	Apr. to Oct.	all day	mid way to the bottom variable	all ſmall	——	1 2 5	bits of ſmelts
Trout	purling ſtreams and eddies of ſtony bottom rivers	Mar. to Mich.	ditto	cold weather 6 inches to 9 hot wea. top to mid water	1 to 5	——	1 2 5 to 8	1 8
Tench	mud bottom river or pond	All the year	Sun riſe to 9 3 to Sun-ſet	cold wea. 3 inch. from bot. hot weather mid water	——	1 3 4	1 3 4 to 7	——
Umber or Grayling	clay bottom, ſwift ſtream	All the year	all day	cold weather 6 to 9 inches hot wea. top to mid water	1 to 5	——	all	1 8

* To fiſh at ſterns, let the bait ſink two or three yards; in this a pater-noſter line is commonly uſed, that is, five or ſix hooks on a line about four or five inches diſtance: bait as above—The figures in this table are explained as follow:

A Deſcription of proper Baits for the ſeveral Sorts of FISH *referred to in the foregoing Table.*

FLIES.

1. Stone-fly, found under hollow ſtones at the ſide of rivers, is of a brown colour, with yellow ſtreaks on the back and belly, has large wings, and is in ſeaſon from *April* to *July*.

2. Green-drake, found among ſtones by river ſides, has a yellow body ribbed with green, is long and ſlender, with wings like a butterfly, his tail turns on his back, and is in ſeaſon from *May* to *Midſummer*.

3. Oak-fly, found in the body of an old oak or aſh, with its head downwards, is of a brown colour, and excellent from *May* to *September*; for trout, put a cod-bait or gentle on the point, and let it ſink a few inches in clear water.

4. Palmer-fly, or worm, found on leaves or plants, is commonly called a caterpillar, and when it comes to a fly is excellent for trout.

5. Ant-fly is found in ant-hills from *June* to *September*.

6. The may-fly is to be found playing at the river-ſide, eſpecially againſt rain.

7. The black-fly is to be found upon every hawthorn, after the buds are come off. *For the flies proper for each month, ſee the articles* APRIL, *&c.* ANGLING.

PASTES.

1. Take the blood of ſheeps hearts, and mix it with honey and flour worked to a proper conſiſtence.

2. Take old cheeſe grated, a little butter ſufficient to work it, and colour it with ſaffron: in winter uſe ruſty bacon inſtead of butter.

3. Crumbs of bread chewed or worked with honey, (or ſugar), moiſtened with gum-ivy water.

4. Bread chewed, and worked in the hand till ſtiff. *See for more under the Article* PASTE FOR ANGLING: *as alſo for* WORMS *under its proper article.*

WORMS.

1. The earth-bob, found in ſandy ground after plowing; it is white with a red head and bigger than a gentle: another is found in healthy ground, with a black or blue head. Keep them in an earthen veſſel well covered, and a ſufficient quantity of the mould they harbour in. They are excellent from *April to November*.

2. Gentles, to be had from putrid fleſh: let them lie in wheat bran a few days before uſed.

3. Flag-worms, found in the roots of flags, they are of a pale yellow colour, are longer and thinner than a gentle, and muſt be ſcowered like them.

4. Cow-turd-bob, or clap-bait, found under a cow-turd, from *May* to *Michaelmas;* it is like a gentle, but large. Keep it in its native earth, like the earth-bob.

5. Cadis-worm, or cod bait, found under looſe ſtones in ſhallow rivers; they are yellow, bigger than a gentle, with a black or blue head, and are in ſeaſon from *April* to *July*. Keep them in flannel bags.

6. Lob-worm, found in gardens: it is very large, and has a red head, a ſtreak down the back, and a flat broad tail.

7. Marſh-worms, found in marſhy ground: keep them in mud ten days before you uſe them: their colour is a blueiſh red, and are a good bait from *March* to *Michaelmas*.

8. Brandling red-worms, or blood worms; found in rotten dunghills and tanners bark; they are ſmall red-worms, very good for all ſmall fiſh, have ſometimes a yellow tail, and are called tag tail.

FISH *and* INSECTS.

1. Minnow, 2. Gudgeon, 3. Roach, 4. Dace. 5. Smelts, 6. Yellow Frog, 7. Snail Slit, 8. Graſs-hopper.

FITCH, } a pole-cat; alſo the ſkin or fur of
FITCHOW, } that creature.

FIVES. *See* VIVES.

FLAG-WORM, an inſect ſo called, becauſe it is found and bred in flaggy ponds or ſedgy places, hanging to the fibres, or ſmall ſtrings that grow to the roots of the flags, and they are uſually incloſed in a yellow or reddiſh huſk or caſe.

FLANKS, the ſides of an horſe. In a ſtrict ſenſe, the flanks of a horſe are the extremities of his belly, where the ribs are wanting, and below the loins. They ſhould be full, and at the top of them, on each ſide, ſhould be a feather; and the nearer thoſe feathers are to each other, ſo much the better; but if they be as it were within view, then the mark is excellent.

The diſtance between the laſt rib and haunch-bone, which is properly the flank, ſhould be ſhort, which is termed well-coupled; ſuch horſes are moſt hardy, and will endure labour longeſt.

If a horſe have a flank full enough, you are to conſider whether it be too large; that is, if over againſt that part of the thigh called the ſtiffle, the flank fall too low; for in that caſe it is a great advance to purſineſs, eſpecially if the horſe be not very young.

A horſe is ſaid to have no flank, if the laſt of the ſhort ribs be at a conſiderable diſtance from the haunch-bone; although ſuch horſes may for the time have very good bodies, yet when they are hard laboured, they will looſe them.

A horſe is alſo ſaid to have no flank, when his ribs are too much ſtraightened in their compaſs, which is eaſily perceived, by comparing their height with that of the hauuch-bones, for they ought to be as high, and equally raiſed up as they are, or but very little leſs, when the horſe is in good caſe.

A horſe is likewiſe ſaid to have little flanks, to be ſorrily bodied, to be grunt-bellied and thin gutted, when his flank turns up like a greyhound, and his ribs are flat, narrow, and ſhort.

A well flanked horſe, is one that has wide and well-made ribs, and a good body. In this caſe, the word flank is uſed in the room of gut.

FLEAM, is a ſmall inſtrument of fine ſteel, compoſed

poſed of two or three moveable lancets for bleeding a horſe; and ſometimes make inciſions upon occaſion, and ſupplying the room of an inciſion-knife.

To prevent Flies teazing Cattle.

Boil bay-berries in oil, and anoint them with it, and they will never ſit on cattle; or, wet the hair of horſes, with the juice of gourd at *Midſummer*, and they will not moleſt them. If cattle are anointed with the juice of areſmart, flies will not come near them, though it is the heat of ſummer.

To FLING, is the fiery and obſtinate action of an unruly horſe.

To fling like a cow, is to raiſe only one leg, and give a blow with it.

To fling, or kick with the hind-legs. *See* YERK.

FLINTS, for fowling-pieces, ſhould be clear, but whether dark or light coloured is immaterial. Their ſize ſhould be ſuited to the gun, and be neither too large and thick, or too ſmall and ſlight; the firſt will not give freely, and the other will be apt to break.

FLOATS FOR FISHING, are made divers ways; ſome uſe the quills of *Muſcovy* ducks, which are the beſt for ſlow waters, but for ſtrong ſtreams cork floats are the beſt; therefore take a good ſound cork, without flaws or holes, and bore it through with a hot iron, into which put a quill of a fit proportion; then pare the cork into a pyramidal form, of what ſize you pleaſe, and grind it ſmooth.

For your float, in ſlow ſtreams, a neat round gooſe-quill is proper; but for deep or rapid rivers, or in an eddy, the cork, ſhaped like a pear, is indiſputably the beſt; which ſhould not, in general, exceed the ſize of a nutmeg; let not the quill, which you put through it, be more than half an inch above and below the cork; and this float, though ſome prefer a ſwan's quill, has great advantage over a bare quill; for the quill being defended from the water by the cork, does not ſoften, and the cork enables you to lead your line ſo heavily, as that the hook ſinks almoſt as ſoon as you put into the water; whereas, when you lead but lightly, it does not get to the bottom till it is near the end of your ſwim. See the form of the float, Plate IX. Fig. 16. and, in leading your lines, be careful to balance them ſo nicely, that a very ſmall touch will ſink them; ſome uſe for this purpoſe lead ſhaped like a barley-corn, but there is nothing better to lead with than ſhot, which you muſt have ready cleft always with you; remembering, that when you fiſh fine, it is better to have on your line a great number of ſmall than a few large ſhot.

Whip the end of the quill round the plug with fine ſilk, well waxed; this will keep the water out of your float, and preſerve it greatly.

FLOAT-ANGLING. In this the line ſhould be longer than the rod by two or three feet, and let the pellet that is put upon it be neither ſo heavy as to ſink the cork or float, nor ſo light as to hinder the ſmalleſt touch from pulling it under water, becauſe that is the only ſign you have of a bite. In rivers, it will be moſt proper to make uſe of a cork; but in ſtanding waters, a quill will ſerve well enough.

In fiſhing with a float, your line muſt be about a foot ſhorter than your rod: for if it is longer, you cannot ſo well command your hook when you come to diſengage the fiſh.

Pearch and chub are caught with a float, and alſo gudgeons, and ſometimes barbel and grayling.

For carp and tench, which are ſeldom caught but in ponds, uſe a very ſmall gooſe or a duck-quill float; and for ground bait throw in, every now and then, a bit of chewed bread.

For barbel, the place ſhould be baited the night before you fiſh, with graves, which are the ſediment of melted tallow, and may be had at the tallow-chandlers: uſe the ſame ground-bait while you are fiſhing, as for roach and dace.

In fiſhing with a float for chub in warm weather, fiſh at mid-water, in cool weather, and in cold at the ground.

FLOUNDERS, may be fiſhed for all day long, either in a ſwift ſtream, or in the ſtill deep water; but beſt in the ſtream, in the months of *April*, *May*, *June*, and *July*: the proper baits are all ſorts of worms, waſps, and gentles.

FLUX IN SWINE. It comes by great looſeneſſes in eating unwholeſome food.

Bruiſe nut-galls, or dried acorns, ſloes, and white ſtarch, of each an ounce; boil them in a pint of vinegar and a quart of milk; ſtrain it, and give it warm, morning and evening. Or,

Take nut gall, two ounces, as much ſtarch, and a handful of betony, half an ounce of turpentine, boil them in a pint of milk, and a quart of vinegar, and give it hot three mornings.

FLY-ANGLING. Let the rod be light, and the line twice as long as your rod, and very ſtrong at top, and grow gradually taper. You muſt contrive to have the wind on your back, and the ſun, if it ſhines, to be before you, and to fiſh down the ſtream: and carry the point or top of your rod downwards, by which means the ſhadow of yourſelf and the rod too, will be the leaſt offenſive to the fiſh, for the ſight of any ſhade diſturbs the fiſh, and ſpoils ſport.

In *March*, or *April*, if the weather be dark, or a little windy or cloudy, the beſt fiſhing is with the palmer-worm, which, with the may-fly, are the ground of all fly-angling. *See the Articles* FISHING, ANGLING, *&c.*

Till you are a proficient, every throw will go near to coſt you a hook: therefore practiſe for ſome time without one; or get your flies dreſſed on ſilk-worms gut, and you will not eaſily break them off. *See Articles* FISHING, ANGLING, *&c.*

The beſt times to uſe a fly are, when the river has been a little diſcoloured by rain, and is again clearing, or a cloudy, breezy day. When the wind is high, chuſe the ſtill deep; when ſmall or none, the running ſtreams, uſe then the natural, in boiſterous weather the artificial fly. In clear ſtreams, uſe a ſmall fly; in leſs clear, one larger; a light coloured fly, in a bright day; a dark fly for dark waters; and an orange fly in muddy ones.

To FLY ON HEAD, (in Falconry) is, when a hawk, miſſing her quarry, betakes herſelf to the next check, as crows, *&c.*

To FLY CROSS, (in Falconry) is ſaid of a hawk, when ſhe flies at great birds, as cranes, geeſe, *&c.*

To FLY THE HEELS: a horſe is ſaid to fly the heels when he obeys the ſpur. *See* SPUR *and* HEELS.

FOAL. Colt is the young male of the horſe kind, as filly is the female. It is no difficult matter to know the ſhape that a foal is like to be of, for the ſame ſhape he carries at a month, he will carry at ſix years old, if he be not abuſed in after keeping; and as the good ſhape appears, ſo do the defects alſo.

And as to heighth, it is obſerved, that a large ſhin-bone, long from the knee to the paſtern, ſhews a tall horſe; for which, another way is, to ſee what ſpace he has between his knee and withers, which being doubled, it will be his heighth when he is a competent horſe.

There are alſo means to know their goodneſs; for if they are ſtirring ſpirits, free from affrights, wanton of diſpoſition, and very active at leaping and running, and ſtriving for maſtery, ſuch generally prove good mettled horſes; and thoſe on the contrary are jades.

And if their hoofs be ſtrong, deep, tough, ſmooth, upright ſtanding, and hollow, they cannot be bad; therefore, the *Barbary* horſe is well known by his hoof.

Foals are uſually foaled about the beginning of ſummer, and it is cuſtomary to let them run till *Michaelmas* with the mare, at which time they may be weaned. Some however maintain, that a foal is rendered much ſooner fit for ſervice by being allowed to ſuck the whole winter, and weaned about *Candlemas* or *Shrovetide*. When firſt weaned, let them not be kept in the hearing of their dam, but ſhould be kept in a convenient houſe, with a low rack and manger for hay and oats: the hay muſt be very ſweet and fine, eſpecially at firſt, and a little white bran ſhould be mixed with their oats, in order to keep their bodies open, and make them eat and drink freely. When foals are kept up in the winter, they are not to be immured continually in the ſtable; but in the middle of the day, when the ſun ſhines warm, they ſhould always be allowed to play about for an hour or two, and when the winter is over, they ſhould be turned into ſome dry ground where the graſs is ſweet and ſhort, and where there is good water, that they may drink at pleaſure. The winter after they may be kept in the ſtable, without any further care than that which is taken of other horſes; but after the firſt year, fillies and colts ſhould not be kept together. *For the manner of breaking them, ſee the Article* HORSE.

FODDER, any kind of meat for horſes, or other cattle. In ſome places, hay and ſtraw mingled together, is peculiarly denominated fodder.

FOGGAGE, (in the foreſt law) is rank graſs not eaten up in ſummer.

FOILING, (among Sportſmen) the footing and treading of a deer, that is on the graſs, and ſcarce viſible.

FOLD NET, a ſort of net with which ſmall birds are taken in the night, as repreſented in Plate VII. Fig. 1. and which may be carried by one man, if ſmall; or, if large, two may manage it, and is as follows:

When the net is fixed on both ſides to two ſtrong, ſtraight, and light poles, you muſt have, at leaſt, two or three luſty men to aſſiſt you, all very ſilent; the poles whereon your nets are tied, ſhould be about twelve feet long, that ſo they may hold up the higher.

He who bears the lights, which ſhould be torches, muſt carry them behind the nets in the midſt of them, about two yards from them; and ſo order it, as to carry the nets between the wind and the birds, who all naturally rooſt on their perches with their breaſts againſt the wind; by this means, he that beats the buſhes on the other ſide of the hedge, will drive them out the way towards the light.

When you find any bird in your net, you need not make much haſte, for it will enſnare them of itſelf, and they cannot get away ſuddenly.

FONCEAU, is the bottom, or end, of a cannon-bitt-mouth; that is, the part of the bitt that joins it to the banquet. *See* CHAPERON.

FOOD CASTING; this is a diſorder in horſes, that ariſes from an overload of ſome new meat. When a horſe is turned into fine clover careleſsly, or when he eats largely of the freſh pulſe kinds often, his ſtomach falls into this diſorder; and he will caſt up every thing he ſwallows, water as well as food.

Diſſolve in a pint of boiling water, half an ounce of mithridate, a quarter of an ounce of philonium romanum, and an ounce of honey; add to this, a drachm of powder of cinnamon, and a pint of red port wine, and give it as a drench. He muſt not have any thing for two hours after it, and then only a little ſweet hay. After this, feed him carefully, and give him moderate labour or exerciſe for three days, and there will be ſeldom any occaſion for repeating the drench; but, if there ſhould, one more will make the cure effectual.

FOOT OF A HORSE, conſiſts of a hoof or coffin; which is all the horn that appears when the horſe's foot is ſet on the ground.

It is a great imperfection to have feet too large and fat, or to have them little: ſuch horſes as have them too little, are for the moſt part very heavy, and apt to ſtumble, eſpecially if with ſuch feet they have weak legs, and too long paſterns; on the other hand, too ſmall feet are much to be ſuſpected, becauſe they are often painful, and ſubject to cloven quarters, and other imperfections.

FOOT OF A HORSE, is the extremity of the leg, from the coronet to the lower part of the hoof.

The four feet are diſtinguiſhed by four different names; the two fore feet are by ſome called the hands of a horſe, but that term is in diſuſe; the common expreſſion being the far fore foot, to denote the right foot before; the near foot, the ſtirrup foot, and the bridle hand foot, to denote the left before.

Of the two hinder feet, the right is called the far hind foot: and when ſpears were uſed, it was called the ſpear foot, becauſe in reſting the ſpear, the ſocket of it anſwered the right foot.

The left hind foot, is called the near foot behind.

FAT-

FAT-FOOT; a horſe is ſaid to have a fat foot, when the hoof is ſo thin and weak, that unleſs the nails be drove very ſhort, he runs the riſk of being pricked in ſhoeing; the *Engliſh* horſes are very ſubject to this diſorder. A horſe's foot is ſaid to be derobe, *i. e.* robbed or ſtolen, when it is worn and waſted by going without ſhoes, ſo that for want of hoof it is difficult to ſhoe them.

FOOTGELD, } an amercement, or fine laid upon
FOUTGELD, } thoſe who lie within the bounds of a foreſt, for not lawing or cutting out the ball of their dogs feet; and to be quit of footgeld, is a privilege to keep dogs there unlawed and uncontrouled.

FOREHEAD OF A HORSE, ſhould be ſomewhat broad; ſome would have it a little raiſed, but a flat one is more beautiful.

A horſe ſhould have in his forehead that which we call a feather, which is a natural frizzling or turning of the hair; if he have two that are near, or touch, the mark is ſo much the better.

If a horſe be neither white, dappled nor approaching theſe colours, he ſhould have a ſtar or blaze in his forehead: it being a defect, not only as to the beauty, but often as to the goodneſs of the horſe of any dark colour to be without one.

FORE LEGS OF A HORSE, conſiſt of an arm, fore thigh and the ſhank, both which, the larger, broader, and more nervous they are, the better.

FORE-LOIN (with Hunters) is when a hound going before the reſt of the cry, meets chaſe and goes away with it.

FOREST, a great wood, or place privileged by royal authority, which differs from a park, warren, or chaſe; being on purpoſe allotted for the peaceable abiding and nouriſhing of beaſts and fowls thereto belonging; for which there are certain peculiar laws, officers, and orders, part of which appear in the great charter of the foreſt. Its properties are theſe:

1. A foreſt truly and ſtrictly taken, cannot be in the hands of any but the King, becauſe none elſe has power to grant a commiſſion to be a Juſtice in Eyre.

2. The next property is the courts, as the Juſtice-ſeat every three years, the Swainmote three times a year, and the Attachment once every forty days.

3. The third property may be the officers belonging to it, for the preſervation of vert and veniſon; as the Juſtice of the foreſt, the Warder or Keeper, the Verdurers, the Foreſters, Agiſtors, Regarders, Beadles, *&c.* which ſee in their proper places.

But the principal court of the foreſt is the Swainmote, which is no leſs incident thereto, than a pie-powder to a fair; and if this fails there is nothing of a foreſt remaining, but it is turned into the nature of a chaſe.

Foreſts are of that antiquity in *England*, that, excepting the New-foreſt in *Hampſhire*, erected by William the Conqueror; and *Hampton*-Court erected by Henry VIII. it is ſaid there is no record or hiſtory which makes any certain mention of their erection, though they are mentioned by ſeveral writers, and in divers of our laws and ſtatutes. There are 69 foreſts in *England*, 13 chaſes, and 800 parks; the four principal foreſts are New-foreſt, Sherwood-foreſt, Dean-foreſt, and Windſor-foreſt.

FORESTER, is an officer of the foreſt, ſworn to preſerve the vert or veniſon therein, and to attend the wild beaſts within his bailiwick, and to watch and endeavour to keep them ſafe by day and night; he is alſo to apprehend all offenders againſt vert and veniſon, and to preſent them to the courts of the foreſt, to the end that they may be puniſhed according to their offences.

FORKED HEADS (with Hunters) all deer heads which bear two croches on the top, or that have their croches doubled.

FORKED-TAILS, a name given in ſome parts of the kingdom to the ſalmon, in the fourth year of its growth.

FORME, a *French* term for a ſwelling in the very ſubſtance of a horſe's paſtern, and not in the ſkin; they come as well in the hind legs as in the fore, and though it be an imperfection not very common, yet it is dangerous, as it will admit no other remedy but firing and taking out the ſole; neither can the fire be given to the part without great difficulty and hazard.

FORMICA, is a diſtemper which commonly ſeizes upon the horn of a hawk's beak, which will eat the beak away, occaſioned by a worm.

FORMICA is alſo a ſcurvy mange, which in ſummer time very much annoys a ſpaniel's ears, and is cauſed by flies and their own ſcratching with their feet.

For the cure: Infuſe four ounces of gum-dragon in the ſtrongeſt vinegar that can be got, for the ſpace of eight days, and afterwards bruiſe it on a marble ſtone, as painters do their colours; then add two ounces of roach alum and galls; mingle all well together and apply it to the part affected.

FORMS, OR SEATS (hunting term) applied to a hare, when ſhe ſquats in any place.

FOUR CORNERS; to work upon the four corners, is to divide (in imagination) the volt or round into four quarters; the horſe makes a round or two on trot or gallop, and when he has done ſo upon each quarter he has made the four corners.

To FOUNDER A HORSE, is to over-ride him, or to ſpoil him with hard working.

FOUNDERING IN THE FEET, a diſtemper that affects a horſe by means of hard riding or labour, or by heats and colds, which diſorder the body, and excite malignant humours, that inflame the blood, melt the greaſe, and make it deſcend downwards to the feet, and there ſettle; which cauſes a numbneſs in the hoof, ſo that the horſe has no ſenſe or feeling in it; and is hardly able to ſtand, and when he does he ſhakes and quakes as if he had an ague fit upon him; ſometimes this malady proceeds from his being watered while he is very hot, and his greaſe melted within him, and then ſuddenly cooled by ſetting him upon cold planks without litter; or by taking his ſaddle off too ſoon, or elſe by letting him ſtand while hot in ſome ſhallow water up to the fetlocks;

fetlocks; by means of which extraordinary coldneſs, it cauſes the melted greaſe to fall down into their feet, and there to cake and congeal.

A horſe may alſo be foundered by wearing ſtraight ſhoes, and by travelling upon hard ground.

The ſymptoms by which you may know when your horſe is foundered upon his fore feet, and not his hind feet, is by his treading only upon his hind feet, and as little as he can upon the other; or his going crouching and crumpling upon his buttocks; and when ſometimes he is foundered upon his hind feet, and not upon his fore feet (which happens but ſeldom) it may be known by his ſeeming weak behind, and his reſting himſelf as much upon his fore feet as he can; being afraid to ſet his hinder feet to the ground.

The general method of cure is: firſt, to pare all the horſe's ſoles ſo thin that you may ſee the quick: then to bleed him well at every toe, ſtop the vein with tallow and roſin, and having tacked hollow ſhoes on his feet, ſtop them with bran, tar, and tallow, as boiling hot as may be; repeating this every other day for a week together, and afterwards to give him good exerciſe, *&c.*

CHEST FOUNDERING, a diſtemper proceeding from crudities in the ſtomach, or other weakneſſes obſtructing the paſſage of the lungs.

This is diſcovered by the horſe's often coveting to lie down, and ſtanding ſtraggling with his fore legs; the ſymptoms being much the ſame as in purſineſs; the only difference is, that young horſes are ſubject to cheſt foundering as well as old; whereas thoſe horſes which are troubled with purſineſs are generally ſix years old and above.

Graſs, with much refreſhing and cooling, cures the former, but increaſes the latter.

The cure: Take five or ſix pennyworth of oil of petre, and mingle it with an equal quantity of ale or beer, and with your hand rub this mixture on the part affected, a red hot fire-ſhovel being held againſt it while you are rubbing it.

FOUNDERING IN THE BODY, is cauſed by a horſe's eating too much provender ſuddenly, while he is too hot and panting, ſo that his food not being well digeſted breeds ill humours, which by degrees ſpread themſelves all over his members, and at length does ſo oppreſs his body that it renders him extremely weak, and makes him incapable of bowing his joints, and when he has laid down cannot riſe again; nor can he either ſtale or dung without great pain.

It is alſo cauſed by drinking too often upon a journey while he is hot, not being ridden after it.

The ſymptoms are, the horſe will be chilly and quake with cold after drinking; and ſome of his drink will come out at his noſe, and in a few days his legs will ſwell, and after a while begin to peel, he will have a dry cough, his eyes will water, and his noſe run with white phlegmatic ſtuff, he will forſake his meat, and hang down his head for extreme pain in the manger.

For the cure: Firſt, rake the horſe's fundament and give him a clyſter: then put half an ounce of cinnamon, and of liquorice and anniſeeds each two ſpoonfuls in fine powder, and five or ſix ſpoonfuls of honey into a quart of ale or ſack, ſet it on the fire till the honey is melted, and give it him lukewarm to drink, riding him afterwards gently for an hour, clothe him and litter him warm, and keep him faſting for two hours more: ſprinkle his hay with water, ſift his oats clean from the duſt, and give it him by little and little; let him drink warm meſhes of malt and water; and when he has recovered ſtrength, bleed him in his neck vein, and perfume his head with frankincenſe once a day.

FOWLING is uſed two manner of ways, either by enchantment or enticement; by winning or wooing the fowl unto you by pipe, whiſtle, or call; or elſe by machines or engines, which ſurprize them unawares.

Fowls are of divers ſpecies, which differ in their nature as their feathers; which by reaſon of the many different kinds, for brevity ſake, ſhall be only diſtinguiſhed here into two kinds, land-fowl and water-fowl.

The water-fowl are ſo called from the natural delight they take in and about the water, gathering from thence all their food and nutriment.

Here it may be obſerved, that water-fowl are in their own nature the moſt ſubtil and cunning of birds, and moſt careful of their own ſafety; and hence they have, by ſome authors, been compared to an orderly and well governed camp, having ſcouts on land afar off, courts of guards, centinels, and all ſorts of other watchful officers, ſurrounding the body, to give an alarm of the approach of any ſeeming danger.

And if you obſerve, you will find that there will be always ſome ſtraggling fowl, which lie aloof from the greater number, which ſtill call firſt.

Now it is the nature of water-fowl to fly in great flocks, having always a regard to the general ſafety; ſo that if you ſee a ſingle fowl or a couple fly together, you may imagine they have been ſomewhere affrighted from the reſt by ſome ſudden diſturbance, or apprehenſion of danger, but ſo naturally are they inclined to ſociety, that they ſeldom leave wing till they meet together again.

And this is occaſioned not only by the near approach of man, but alſo by the beating of haggards upon the rivers, as alſo by the appearance of the bold buzzard and ring-tail.

Of water-fowls there are two kinds, ſuch as live off the water, and ſuch as live on the water without ſwimming in it; but wading, and diving for it with their long legs: the other, web-footed and ſwim, as the ſwan, gooſe, mallard, &c.

As to the manner of fowling, or taking fowl, ſee under each particular kind in their proper places alphabetically. *See alſo* SHOOTING.

FOWLING-PIECE; that piece is always reckoned the beſt, which has the longeſt barrel, with an indifferent bore under a harquebuſs, though every fowler ſhould have them of ſuch different ſorts and ſizes as are ſuitable to the game he deſigns to kill: as to the barrel, let it be well poliſhed and ſmooth within, and the bore of an equal bigneſs, which may be proved by putting a piece

piece of paſteboard, cut of the exact roundneſs of the top, which gently put down to the touch-hole; and if it goes down well and even, without ſtops or ſlipping, you may conclude it even bored. The bridge pan muſt be ſomewhat above the touch-hole, only with a notch in the bridge-pan, to let down a little powder; which will prevent the gun from recoiling, which otherwiſe it is apt to do.

As to the locks, chuſe ſuch as are well filled with true work, whoſe ſprings muſt be neither too ſtrong nor too weak; and let the hammer be well hardened, and pliable to go down to the pan with quick motion at the touching the tricker; for the trial thereof, move it gently to the lock; and if it goes with jerks, in a circular motion, it is well made, as for the ſtock's, walnut tree or aſh are very good; the maple is the fineſt and beſt for ornament.

In ſhooting, obſerve to ſhoot with the wind, if poſſible, and not againſt it; and rather ſide-ways, or behind the fowl, than full in their faces

Next obſerve to chuſe the moſt convenient ſhelter you can find, as hedge, bank, tree, or any thing elſe which may hide you from the view of the fowl.

Take care to have your dog at your heels under good command, not daring to ſtir till you give the word, after having diſcharged your piece: for ſome ill taught dogs will, upon the ſnap of the cock, preſentlyruſh out and ſpoil your ſport.

If you have not ſhelter enough, by reaſon of the nakedneſs of the banks and want of trees, you muſt creep upon your hands and knees under the banks, and laying flat upon your belly, put the muzzle of your piece over the bank, and ſo take your level; for a fowl is ſo fearful of man, that though an hawk were ſoaring over her head, yet at the ſight of a man ſhe would take to the wing, and run the riſk of that danger.

It is neceſſary for any gentleman, who ſports much, to have two guns: the barrel of one about two feet nine inches, which will ſerve very well for the beginning of the ſeaſon, and for wood-ſhooting: the other about three feet three inches, for open-ſhooting after *Michaelmas:* the birds by that time are grown ſo ſhy, that your ſhoots muſt be at longer diſtances. But if you intend one gun to ſerve for all purpoſes, then a three feet barrel (or thereabouts) is moſt proper.

A long gun is leſs liable to do miſchief to the ſportſman, and is more certain to hit its mark, being not ſo ſoon put aſide in taking ſight.

It appears from various trials, that the ſhot fly as regularly, or more ſo, and with as much force without any wad between the powder and ſhot, as it does with wad; only it is difficult to keep the ſhot from mixing with the powder, but it does not ſignify how thin your wad is betwixt the powder and ſhot, ſo it does but keep them from mixing. But the ſhot fly the thicker and ſtronger from having a pretty good wad cloſely rammed over them.

It is a common practice to load with a pipe bowl of powder, and a bowl and a half of ſhot; and when they find they cannot kill often, think they do not put ſhot enough, ſo put in more, and are obliged to leſſen the quantity of powder to prevent its recoiling; not conſidering this axiom, "that action and re-action are equal"——that upon diſcharge of powder the gun is forced back, as the ſhot is forwards, in proportion to the weight of ſhot to the weight of the gun; ſo that by putting in a larger load of ſhot, and leſs powder, you will be ſtruck more, and the bird you ſhoot at leſs; ſo that though you put many ſhot into the bird, they will not have force enough to kill, unleſs at a very ſhort diſtance.

To make Gun Barrels of a fine brown Colour.

As a brown barrel ſeems to be the moſt pleaſing to a ſportſman, the following is a certain and eaſy method to perform it:

Rub your barrel bright with ſand paper, or if bright ſcour it with dry brickduſt to take off all greaſineſs, and fit a ſtick or piece of wood into the muzzle long enough to hold it by.

Bruiſe roughly about half an ounce of ſtone-brimſtone, and ſprinkle it over a gentle fire either of wood, or coal, or charcoal; hold your barrel over the ſmoak, turning and drawing it backward and forward until it be equally tinged all over; this done, ſet it in a cellar or damp room till next day, in which time you will find it has thrown out a fine ruſt, over which you may draw your finger to ſpread it even alike, and let it ſtand another day. If you perceive any parts that have not taken the ruſt, you are to ſcour ſuch parts bright, and repeat the above operation.

It is then to be poliſhed with a hard bruſh (which is firſt to be rubbed with bees-wax) and after with a dry woollen or rough linen rag, which will make it look of a beautiful brown colour. This rubbing muſt be repeated every day ſo long as it throws out any roughneſs. No oil or greaſe ſhould come on it for ſome time, as that may bring off the ruſt in places; but if by neglect it ſhould get ſo ſtrong a roughneſs that you cannot get it down with common rubbing, in that caſe wipe it over with ſweet oil, and rub it off gently with a clean linen rag, and the next day you may poliſh it down with your bruſh, as before directed.

Directions for keeping your Guns in order.

If your lock and furniture are bright, the beſt way to ſave the trouble, as well as prevent the damage that may be done by unſkilful poliſhing, is never to ſuffer them to ruſt, which may eaſily be prevented by frequently rubbing all the bright parts with a ſmall bruſh, dipped in ſweet oil, which ſhould be well rubbed off with a linen rag: and this ſhould never be neglected both before and after uſing it.

It is needleſs to take the lock often to pieces, if you take it off and bruſh it with plenty of oil, and pull up the cock and hammer a few times, the dirt with the oil will work itſelf out, which is to be wiped off, and a little clean oil put on thoſe parts where there is any friction, will anſwer the purpoſe.

To

To waſh out the Barrel.

Fill it either with cold or warm water, and empty it and let it ſtand a few minutes, and the air and moiſture will ſoften the ſoil left from the firing of the powder, ſo as to come off the eaſier. You may uſe ſand with your rag or tow to waſh it out, which will remove any of the ſoil that ſticks hard to it without hurting its ſmoothneſs. Care muſt be taken to wipe it very dry, and if it is to be ſet by for a time, it will be proper to wipe it out with an oily rag and ſtop the muzzle with the ſame, otherwiſe it will be apt to ruſt. *See* STALKING HORSE.

Of the Stock, Lock, &c.

The wood which is moſt commonly employed for the ſtock, and which appears the beſt for the purpoſe, is walnut; and, the only choice in this is, that the grain be even and cloſe, and as free as poſſible from knots and burrs, which, though they may add to the beauty of the ſtock, ſeldom fail to take away from its ſtrength, unleſs they are confined entirely to the butt part. As to the curvature, no particular degree can be aſſigned as a ſtandard; different perſons requiring different degrees, according to the length of their neck, and to the manner in which they hold their head whilſt taking aim. This, therefore, as well as the length of the butt, which depends partly upon the circumſtances juſt mentioned, but chiefly upon the length of the arms, can be determined with great accuracy by the gunſmith, from obſerving the manner in which the ſhooter preſents his piece and takes his aim.

With regard to the locks, we have nothing material to offer; the genius and induſtry of the *Engliſh* workmen having already brought them to ſuch a degree of elegance and perfection, that we have ſcarcely any thing farther to hope for, or require. The real improvements are not confined to any particular maker; and, though the minutiæ peculiar to each may determine the purchaſer in his preference, no perſon need fear much diſappointment in the eſſential qualities of a lock, provided he goes to the price of a good one. It is of much more conſequence to the excellence of a lock, that the ſprings be proportioned to each other, than that they ſhould all be made very ſtrong. A moderate degree of force is ſufficient to produce the required effect; and whatever exceeds this proves detrimental, by rendering the trigger difficult to draw, or producing ſuch a ſtroke as breaks the flints, or throws the piece from the direction in which it was pointed. If the main-ſpring be very ſtrong, and the hammer-ſpring weak, the cock is often broken for want of ſufficient reſiſtance to its ſtroke, until it is ſtopped all at once by the check of the lock-plate. Whilſt, on the other hand, if the hammer-ſpring be ſtiff, and the main-ſpring weak, the cock has not ſufficient force to drive back the hammer. And, in both caſes, the colliſion between the flint and ſteel is too ſlight to produce the neceſſary fire. The face of the hammer, alſo, may be too hard or too ſoft. The former is known by the flint making ſcarcely any impreſſion upon it, and the ſparks being few and very ſmall. The latter is known by the flint cutting deep into the hammer at every ſtroke, whilſt the ſparks are alſo few in number, and of a dull-red colour. When the ſtrength of the ſprings, and the temper of the hammer, are in their due degree, the ſparks are numerous, brilliant, and accompanied with a conſiderable whizzing noiſe.

To explain theſe differences it is neceſſary to obſerve, that the ſparks produced by the colliſion of flint and ſteel are particles of the metal driven off in a ſtrongly-heated ſtate, and which falling among the powder inflame it inſtantly. By ſnapping a gun or piſtol over a ſheet of white paper, we may collect theſe ſparks, and, by ſubmitting them to a microſcope, demonſtrate the truth of this. If the ſparks are very brilliant, and accompanied with a whizzing noiſe, we ſhall find the particles collected on the paper to be little globules of ſteel, which were not only melted, but have actually undergone a conſiderable degree of vitrification from the intenſity of the heat excited by the colliſion, their ſurface exactly reſembling the ſlag thrown out from an iron foundery. When the face of the hammer is too hard, the particles which the flint ſtrikes off are ſo ſmall, that they are cooled before they fall into the pan; and, when the hammer is too ſoft, the particles driven off are ſo large as not to be ſufficiently heated to fire the powder.

We think the conical form of the touch-hole a real improvement; but do not approve of its widening ſo much as it does in the patent-breech, as the force of the fuſe againſt the opening into the pan is greatly increaſed by it. Gold pans are of very little advantage; for, as the iron muſt be ſoftened before they can be applied, it is very liable to ruſt, and thus deſtroy its connection with the gold; the tin, alſo, by means of which the gold lining is fixed, is frequently melted by the fire of the fuſe being directed upon the bottom of the pan, and the gold thereby detached from its hold; this will happen more readily when the touch-hole is placed very low, and when, from its form or width, the fire of the fuſe is conſiderable. A great improvement, however, has lately been made in the manner of putting in the gold pans; they are now dove-tailed in before the lock-plate is hardened, by which means they ſeldom or ever blow out; and it is now found that they will ſtand better than any other ſpecies of pan, provided that the lock is eaſed from the touch-hole, or taken off when the barrel is taken out of the ſtock. Still we are of opinion that the ſteel pan will be found, with common care in cleaning it, to laſt as long, and to anſwer every purpoſe as well, as when lined with gold. *See* SHOOTING.

Of the Choice of Gunpowder.

The excellence of this article as to its properties, and the relative condition in which it is at the time of uſing it, with reſpect to dryneſs, dampneſs, or age, are in themſelves circumſtances ſo obviouſly important to the ſportſman, that we have often been aſtoniſhed at the almoſt total neglect which attends this part of the ſhooting ſcience: but he may henceforward be aſſured, that, without

without the utmoſt circumſpection and care herein, his high-priced fowling-piece will but little avail him; mortification and diſguſt will generally enſue, and the gunſmith too frequently be blamed for the fault which the ſportſman alone has created by his own neglect.

Gunpowder is compoſed of very light charcoal, ſulphur, and well-refined ſaltpetre. The powder uſed by ſportſmen in ſhooting game, is generally compoſed of ſix parts of ſaltpetre, one of charcoal, and one of ſulphur; but theſe proportions, as well as the introduction of other ingredients, and the ſizes of the grains, are undoubtedly varied by the different manufacturers in the compoſition of the powders of the ſame denomination, and are always kept profoundly ſecret.

Powder, however well dried and fabricated it may have been, loſes its ſtrength when allowed to become damp. If daily obſervations on powder put into damp magazines, and carefully preſerved in barrels, are not ſufficient to eſtabliſh this fact, the following experiment will render it inconteſtible:—Let a quantity of well-dried powder be nicely weighed, and put into a cloſe room, where the air is temperate, and ſeemingly dry, and be left for three or four hours; on weighing it again, its weight will be increaſed. This ſame powder, expoſed to an air loaded with vapour, acquires much additional weight in a ſhort time. Now the increaſe of the weight being proportional to the quantity of vapour contained in the atmoſphere, and to the length of time that the powder is expoſed to it; it follows, that powder eaſily attracts moiſture. Wherefore, if a degree of heat ſufficient only to fire dry powder, be applied to powder that is damp, the moiſture will oppoſe the action of the fire, and the grains either will not take fire at all, or their inflammation will be ſlower: thus, as the fire will ſpread more ſlowly, fewer grains will burn; and the penetration of the fire from the ſurface to the centre of each grain, and, conſequently, their conſumption, will require more time. Whence it may be concluded, that all degrees of moiſture diminiſh the force of powder. Saltpetre, not ſufficiently refined, attracts moiſture very readily; and as the ſubſtances that render it impure leſſen the quantity of fluid, and prevent its detonation, it ſhould be refined as much as poſſible before it is employed in the fabrication of gunpowder.

The force of powder is owing to an elaſtic fluid generated at the exploſion, the ſuddenneſs of which depends upon the proportion of the ingredients, the contact between the nitrous and combuſtible particles, and the ſize of the grains, &c. Hence it may be concluded, that when ſeveral powders, equally well dried, and fired under the ſame ſtate of the atmoſphere, are compared together, that which produces the greateſt quantity of the elaſtic fluid, in a given ſpace of time, is the ſtrongeſt.

There are two general methods of examining gunpowder; one with regard to the purity of its compoſition, the other with regard to its ſtrength. Its purity is known by laying two or three little heaps near each other upon white paper, and firing one of them. For if this takes fire readily, and the ſmoke riſes upright, without leaving any droſs or feculent matter behind, and without burning the paper, or firing the other heaps, it is eſteemed a ſign that the ſulphur and nitre were well purified, that the coal was good, and that the three ingredients were thoroughly incorporated together: but, if the other heaps alſo take fire at the ſame time, it is preſumed, that either common ſalt was mixed with the nitre, or that the coal was not well ground, or the whole maſs not well beat and mixed together; and, if either the nitre or ſulphur be not well purified, the paper will be black or ſpotted.

For proving the ſtrength of gunpowder, a number of machines have been invented, all of which are liable to many objections, and, upon trial with the ſame powder, are found to give reſults ſo different, that no dependence can be placed in them; to ſo many modifications are the principal properties of powder ſubject, even in experiments conducted with the utmoſt care. Theſe variations have been attributed, by many, to the different denſity of the atmoſphere at the time of the different experiments; but the opinions upon this matter are ſo improbable in themſelves, and ſo contradictory to each other, that they claim neither attention nor belief. Thus, ſome will have it, that gun-powder produces the greateſt effect in the morning and evening, when the air is cool and denſe; whilſt others aſſert, that its force is greateſt in ſunſhine, and during the heat of the day. Mr. Robins concludes from the reſult of ſeveral hundred trials, made by him at all times of the day, and in every ſeaſon of the year, that the denſity of the atmoſphere has no effect in this matter, and that we ought to attribute the variations obſerved at theſe times to ſome other cauſe than the ſtate of the air: probably they are owing to the imperfection of the inſtrument, or to the manner in which the trial was conducted. In this ſtate of uncertainty, then, upon the theory of the effects of gunpowder, we remain at this day.

If experiments, however, are made with the prover, great care muſt be taken, not to preſs the powder in the ſmalleſt degree into the tube, but to pour it gently in; and, particularly in trying the ſtrength of different powders, which is the beſt uſe to which the inſtrument, imperfect as it is, can be applied, attention muſt be paid, that one powder is not preſſed cloſer than another at each experiment, nor the ſucceſſive experiments made until the prover is cool, otherwiſe no comparative certainty can be gained. By far the moſt certain method, however, of determining the quality of powder, is by drying ſome of it very well, and then trying how many ſheets of paper it will drive the ſhot through, at the diſtance of ten or twelve yards. In this trial we ſhould be careful to employ the ſame ſized ſhot in each experiment, the quantity both of the ſhot and the powder being regulated by exact weight; otherwiſe we cannot, even in this experiment, arrive to any certainty in comparing the ſtrength of different powders, or of the ſame powder at different times.

Powder ought to be kept very dry; every degree of moiſture injures it. Good powder, however, does not

readily imbibe moiſture; and, perhaps, there is no greater proof of the bad quality of powder, than its growing damp quickly when expoſed to the air: this readineſs to become moiſt depends upon the ſaltpetre employed in the compoſition not having been freed from the common ſalt it contains in its crude ſtate, and which, in conſequence, has a ſtrong attraction for watery particles.

Powder may acquire a ſmall degree of dampneſs, and be freed from it again by drying, without much injury to its quality. But, if the moiſture is conſiderable, the ſaltpetre is diſſolved, and the intimate mixture of the ingredients thereby entirely deſtroyed. Drying powder with too great a heat alſo injures it; for there is a degree of heat, which, although not ſufficient to fire the powder, will yet diſſipate the ſulphur, and impair the compoſition by deſtroying the texture of the grains. The heat of the ſun is, perhaps, the greateſt it can with ſafety be expoſed to, and, if properly managed, is ſufficient for the purpoſe: when this cannot be had, the heat of a fire regulated to the ſame degree may be employed; and for this end, a heated pewter plate is perhaps as good as any thing, becauſe pewter retains ſo moderate a heat, that there can be little danger of ſpoiling the powder by producing the conſequences before-mentioned.

It is obſervable, that damp powder produces a remarkable foulneſs in the fowling-piece after firing, much beyond what ariſes from an equal quantity of dry powder; and this ſeems to ariſe from the diminution of the activity of the fire in the exploſion. Unleſs the ſportſman is very particular indeed in the mode of keeping his powder, we would recommend him always to air it and his flaſk, before he takes the field. Flaſks made of copper or tin are much better for keeping powder in, than thoſe made of leather, or than ſmall caſks: the necks of theſe ſhould be ſmall, and well ſtopped with cork.

After this diſſertation on gunpowder, it will naturally be expected that we point out to the ſportſman the beſt powder for ſhooting; for this purpoſe we ſhall recommend the *Dartford* powder of Meſſrs. PIGOU and ANDREWS, for being, not only ſtronger, but the cleaneſt in burning and the quickeſt in firing, of any other at this time manufactured in the kingdom; and, we alſo venture to give it as our opinion, that the manufacturers of this powder ſeem to have attained, as nearly as any purpoſe can require, that accuracy of granulation, and of the proportions and qualities of all the ingredients, which moſt readily produces the deſtruction of all the compoſition, and yields the greateſt poſſible quantity of the permanent elaſtic fluid in a given time; which properties alone can conſtitute powder of the beſt quality.

Of Shot.

The choice of this article is highly worthy of the ſportſman's care. It ſhould be equal, round, and void of cavities. *The patent milled ſhot* is, at this time, to be preferred to all other ſorts, and is in ſuch general uſe, that the inſtructions which here follow on the ſize of the ſhot to be adopted in the different chaſes, muſt be underſtood to relate to the *patent ſhot only*.

It is extremely important for the ſucceſs of the chaſe, that the ſportſman ſhould proportion the ſize of his ſhot, as well to the particular ſpecies of game he means to purſue as to the ſeaſon of killing it. Thus, in the firſt month of partridge ſhooting, ſhot No. 1. ſhould be uſed; for ſince, at this time, the birds ſpring near at hand, and we ſeldom fire at more than the diſtance of forty paces, if the ſhooter takes his aim but tolerably well, it is almoſt impoſſible for a bird at this diſtance to eſcape in the circle, or diſk, which the ſhot forms. Hares alſo, at this ſeaſon of the year, ſit cloſer; and, being at this time thinly covered with fur, may eaſily be killed with this ſized ſhot at thirty or thirty-five paces. In ſnipe and quail ſhooting, this ſized ſhot is peculiarly proper; for, in uſing a larger ſize, however true the ſportſman may ſhoot, yet he will frequently miſs; the objects being ſo ſmall, that they have great chance of eſcaping in the vacant ſpaces of the circle or diſk. Yet there are many ſportſmen who ſhoot ſnipes, quails, and field-fares, in countries where they abound, with the ſizes ſix and ſeven of the common ſhot, the laſt of which is called muſtard-ſeed.

About the beginning of *October*, at which time the partridges are ſtronger in the wing, No. 3. is the proper ſhot to be uſed. This ſize ſeems to be the beſt of any; it preſerves a proper medium between ſhot too large, and that which is too ſmall, and will kill a hare from the diſtance of thirty-five to forty paces, and a partridge at fifty, provided the powder be good. It will ſerve alſo for rabbit-ſhooting. In ſhort, it is excellent for all ſeaſons, and many ſportſmen uſe no other the ſeaſon round. It is true, that diſtant objects are frequently miſſed for the want of larger ſhot; but then theſe bear no proportion to the number which are daily miſſed by uſing ſhot of too large a ſize, eſpecially with the feathered game. If a man were to ſhoot conſtantly with ſhot No. 5. for one partridge which he might chance to kill with a ſingle pellet, at the diſtance of eighty paces, he would miſs twenty birds at fifty paces, which would in ſuch caſe eſcape in the vacant ſpaces of the circle. But, if the ſportſman expreſsly propoſes to ſhoot wild-ducks, or hares, then, indeed, he had better uſe the No. 5. However, in ſhooting with a double-barreled gun, it may be prudent to load one of the barrels with large ſhot, for the neceſſary occaſions; and, in any caſe large ſhot is required, No. 5. will be found to be better than any other; for its ſize is not ſo large as to prevent it from ſufficiently garniſhing, or being equally ſpread in the circle, and it can at the ſame time perform, in effect, all that a larger-ſized ſhot can do, which garniſhes but very little, if any at all.

In order, therefore, to ſhew clearly, at one view, the comparative difference in the garniſhing of ſhot of different ſizes, we here ſubjoin a table, which indicates the number of pellets preciſely compoſing an ounce weight of each ſort of ſhot.

PATENT

	PATENT SHOT.	
No. B. B.	1 ounce - -	60
B.	id. - -	67
1.	id. - -	86
2.	id. - -	109
3.	id. - -	160
4.	id. - -	200
5.	id. - -	256
6.	id. - -	444
7.	id. - -	530
8.	id. - -	600
	COMMON SHOT.	
No. 7.	1 ounce - -	350
6.	id. - -	260
5.	id. - -	235
4.	id. - -	190
3.	id. - -	140
2.	id. - -	110
1.	id. - -	95

The Proportions of Powder and Shot in the Charge.

To find the charge that gives the longeſt range in fowling-pieces of different dimenſions, muſt be allowed to be a diſcovery of infinite importance to every ſportſman; and, as it ſeems to be an opinion pretty generally received and eſtabliſhed, that every barrel has a particular load (not a meaſure eſtimated by any rules to be drawn from a compariſon made between the proportions of the caliber and the length of the barrel) with which it will ſhoot with greater certainty and effect; it cannot be doubted that he will make ſome experiments with his own barrels, in order to attain this end. Before we proceed, therefore, to lay down rules for the loading of fowling-pieces of different dimenſions, we beg leave to engraft an excellent principle in the practice of the artillery on this point, upon the ſhooting-ſcience. It is aſſerted, that by uſing ſmall charges at firſt, and increaſing the quantity of powder by degrees, the ranges will increaſe to a certain point; after which, if the charge be augmented, they will progreſſively diminiſh; though the recoil will ſtill continue in the ratio of the increaſe of the charge. This is a conſequence that may be deduced from a variety of experiments, and is perfectly agreeable to the principles of mechanics; ſince the recoil and the range ought to be in the reciprocal ratio of the gun and the ſhot, making allowance for the reſiſtance which theſe bodies meet with.

For a fowling-piece of a common caliber, which is from twenty-four to thirty balls to the pound weight; a drachm and a quarter, or, at moſt, a drachm and a half, of good powder; and an ounce, or an ounce and a quarter, of ſhot, is ſufficient. But when ſhot of a larger ſize is uſed, ſuch as No. 5, the charge of ſhot may be increaſed one-fourth, for the purpoſe of counterbalancing, in ſome degree, what the ſize of the ſhot loſes in the number of pellets, and alſo to enable it to garniſh the more. For this purpoſe the ſportſman will find a meaſure marked with the proper gauges very convenient to him. An inſtrument of this nature has been made by an ingenious artiſt, EGG, of the *Hay-market*.

Different opinions, however, are entertained on the proportions of the charge. Some determine the charge of a fowling-piece by the weight of a ball of the exact ſize of the caliber; eſtimating the weight of the powder at one-third of that of the ball, whether it is propoſed to ſhoot with ball or with ſhot; and the weight of the ſhot they eſtimate at a moiety more, or, at the moſt, at double the weight of the ball. This calculation comes pretty near to the propoſitions we have juſt laid down, except in the difference of ſize between the calibers twenty-four and thirty, which, notwithſtanding, is not ſufficiently great in the two caſes to require a gradation in the weight of the charge.

Others again lay down as a rule for the charge of powder, a meaſure of the ſame diameter as the barrel: and double that diameter in depth: and, for the ſhot, a meaſure of the like diameter, but one-third leſs in depth than that for the powder; this alſo agrees tolerably well with the proportions we have mentioned, at leaſt for the powder, but the meaſure of ſhot ſeems to be too ſmall. In ſhooting with a rifle-piece, ſome perſons proportion the quantity of powder to three times the quantity which the mould of the ball adapted to the piece will contain.

Although proverbs are generally true, or at leaſt poſſeſs ſome portion of truth, yet nothing is ſo glaringly abſurd, or leſs founded in rational principles, than that old adage, "Sparing of powder, and liberal of ſhot:" a ſaying, which is not only in the acquaintance, but in the conſtant practice, of moſt ſportſmen.

As a conſequence of overloading with ſhot, the powder has not ſufficient ſtrength to throw it to its proper diſtance; for, if the object be diſtant, one half of the pellets compoſing the charge, by their too great quantity and weight, will ſtrike againſt each other, and fall by the way; and thoſe which reach the mark will have ſmall force, and will produce but little or no effect. Thus to overload is the ſtrange fancy of poachers, who imagine they cannot kill unleſs they put two ounces, or more, of large ſhot into their pieces. It is true, that they deſtroy a great quantity of game, but then it is not fairly ſhot. Such men are in ſome meaſure puniſhed by the ſevere ſtrokes they receive on the ſhoulders and cheeks, in conſequence of the exceſſive recoil.

The method of caſting ſhot is as follows:—The lead being melted, ſtirred, and ſkimmed, a quantity of powdered yellow orpiment is ſtrewed in it, as much as will lie upon a ſhilling, to twelve or fifteen pounds of lead, the whole being well ſtirred, the orpiment will flame. To judge whether there be orpiment enough in, a little of the lead is dropped in a glaſs of water, and if the drops prove round, and without tails, there is orpiment enough, and the degree of heat is as it ſhould be. This done, a copper-plate, hollow in the middle, and three inches in diameter, bored through with thirty or forty ſmall holes, according to the ſize of the ſhot, is placed on an iron frame, over a tub of water, four inches above the water; the hollow part is to be very

thin: on this plate are laid burning coals, to keep the melted lead in fuſion. The lead is now poured gently, with a ladle, on the middle of the plate, and it will make its way through the holes in the bottom of the plate, into the water, in round drops. Great care is taken to keep the lead on the plate in its proper degree of heat; if too cold, it will ſtop the holes; and, if too hot, the drops will crack and fly. The ſhot, thus made, are dried over a gentle fire, always ſtirring them that they may not melt; this done, the greater are ſeparated from the ſmaller, by paſſing them through ſieves for that purpoſe.

Of the Wadding.

Many ſportſmen are of opinion, that the wadding, of whatever material it may be compoſed, or whether it be rammed looſe, or tight, into the barrel, has no effect, either on the range of the ſhot, or the cloſeneſs with which they are thrown. Now, although it may be granted, that the material which covers the ſhot, and which is uſed only for the purpoſe of keeping it down, is of little importance, yet the ſubſtance which covers the powder is undoubtedly of much conſequence. It ſhould be quite cloſe in the barrel, and that without being rammed too hard: the wadding ſhould therefore be of a ſoft and tractable material, but at the ſame time of ſufficient conſiſtence to carry the ſhot in a body to a certain diſtance from the muzzle of the piece. For, if the wadding is rammed too cloſe, or is of a hard and rigid ſubſtance, ſuch as ſtiff brown paper, the piece will recoil, and the ſhot will ſpread more wide: if, on the contrary, the wadding is not ſufficiently cloſe, and is compoſed of a ſlight and too pliant material, ſuch as wool or cotton, it will not be of conſiſtence enough to carry the ſhot, and the diſcharge will loſe its proper force. Beſides, a certain portion of the ſhot, which is more immediately in contact with the wadding, will be melted by the exploſion of the powder. Experience teaches, that nothing is better for wadding than ſoft brown paper; it combines ſuppleneſs with conſiſtence, and moulds itſelf to the barrel: and it is farther obſervable, that ſuch wadding never falls to the ground in leſs than twelve or fifteen paces from the muzzle of the piece.

In countries where orchards abound, a very fine moſs, of a greeniſh grey colour, is found adhering to the apple-trees, which is extremely proper for wadding, and which even poſſeſſes the extraordinary quality of making the barrel leſs greaſy and foul than paper, which contains a certain quantity of oil. Tow is alſo very good for this purpoſe. A cork wadding has alſo been extolled for the virtue of increaſing the range and cloſeneſs of the ſhot of pieces; we have not made the experiment, but it ſeems probable, that a wadding of cork, adapted to the caliber of the piece, may produce a greater effect than a wadding of paper, in theſe reſpects, that, by ſtopping the barrel more hermetically, it prevents the elaſtic fluid, produced by the exploſion of the powder, from eſcaping in any way, between the partition of wadding and the charge, preſerves all its force to the mouth of the gun, and thereby renders the effect of the powder the greater. Theſe principles have lately recommended the wadding of hat, cut out by punches, of a ſize to fit the exact caliber of the gun, to far exceed every other, and to which, therefore, we refer the reader.

We have now, however, to recommend a wadding of the cloth called fearnought, or ſhepherds cloth, (which is very generally known,) and punched by the ſame inſtrument as mentioned for hat-wadding; but it muſt not be dyed, for the acid which is uſed to ſet the colour will ruſt the inſide of the barrel immediately in contact with it, and eſpecially if the gun is laid by charged.

FOWLS are well-known domeſtic birds, without the aſſiſtance of which the farmer's ſtock cannot be ſaid to be complete, the advantage of which muſt appear to every one who keeps them. And ſo equal is the diſtribution of their bounties, and ſo trifling the expence attending them, that the pooreſt villager may reap the ſame benefit from their products as the moſt ſubſtantial farmer.

As it would be unneceſſary in this place to give a particular deſcription of the various ſorts of cocks and hens, I ſhall only adviſe the purchaſer to chuſe thoſe that are the beſt breeders and the beſt layers; the oldeſt being always reckoned the moſt proper for ſitting, and the youngeſt for laying. Care, however, muſt be taken that they are not kept too fat, as in this caſe no ſort will be good for either.

The beſt age to ſet a hen for chickens is from two years old to five, and the beſt month to ſet them is *February*; though any month between that and *Michaelmas* is good.

A hen ſits twenty days, whereas geeſe, ducks, and turkies, ſit thirty. Obſerve to let them have always meat and drink near them while they ſit, that they may not ſtraggle from their neſts, and the eggs thereby loſe their nouriſhment.

It is ſaid that if fowls are fed with buck or *French* wheat, or with hemp-ſeed, they will lay more eggs than ordinary; and buck-wheat, either the whole or ground, and made into paſte, which is beſt, is a grain that will fat fowls or hogs very ſpeedily; but the moſt common food for this purpoſe is barley-meal, moiſtened with milk or water.

The nature of the hen ſhould be as nearly equal as poſſible with that of the cock; ſhe ſhould be working, vigilant, and laborious, both for herſelf and her chickens; in ſize the biggeſt and largeſt are the beſt, every proportion anſwerable to thoſe of the cock, only inſtead of a comb ſhe ſhould have upon her crown a high tuft of feathers. She ſhould have many and ſtrong claws; but it will be better if ſhe has no hinder claws, becauſe they often break the eggs; and beſides ſuch as have do ſometimes prove unnatural.

Hens that crow are neither good breeders nor good layers.

In chuſing hens for hatching, the oldeſt are the beſt, becauſe they are more conſtant, and will ſit out their time; but, if you chuſe for laying, take the youngeſt, becauſe they are luſty, and prone to generation; but do not chuſe a fat hen for either of theſe purpoſes, for,

if

if ſhe be ſet, ſhe will forſake her neſt; the eggs ſhe lays will be without ſhells, and ſhe will grow ſlothful and indolent.

The beſt eggs are thoſe that are laid when the hens are a year and a half or two years old; at which time, if you would have large eggs, give them plenty of victuals, and ſometimes oats, with fenugreek to heat them; for thoſe that are fat generally lay but ſmall ones.

Mix ſome chalk with their food, or mix ſome brick with their bran, moiſtened with a little water, and give them their fill of half-boiled barley, with vetch and millet.

There are ſome hens that have the ill faculty of eating their eggs; to prevent which, take out the white of an egg, and put moiſt plaiſter round about the yolk till it grows hard; and when the hen attempts to eat, and finds ſhe cannot do it, ſhe will ſoon give over breaking her eggs. You may likewiſe pour a clear plaiſter upon the yolk of an egg, and let it harden, ſo that it may ſerve for a ſhell, and put it into the neſt; or you may ſhape an egg of plaiſter, or chalk, and let that be for a neſt-egg.

Hens that have ſpurs often break their eggs, and, inſtead of hatching them, will ſometimes eat them; theſe muſt be ſcoured, as well as thoſe that ſcratch and crow like a cock; firſt by plucking the great quills out of their wings, and by feeding them with millet, barley, and paſte, cut into ſmall pieces, pounded acorns, and bran, with pottage, or crumbs of wheat-bread ſteeped in water.

They muſt be kept in a cloſe place, and reſt, and their feathers muſt be pulled from their heads, thighs, and rumps. If a hen be too fat, or has a looſeneſs, ſhe will lay wind eggs.

The beſt time to ſet a hen, that the chickens may be large and moſt kindly, is in *February*, in the increaſe of the moon, that ſhe may diſcloſe the chickens in the increaſe of the next new moon; for one brood of this month is worth three of any other. Hens, however, may ſet from *March* to *October*, and have good chickens, but not after that time; for the winter is a great enemy to their breeding. A hen ſits juſt twenty-one days; and if you ſet her upon the eggs of ducks, geeſe, or turkies, you muſt ſet them nine days before you put her own eggs to her, of which a hen will cover nineteen; whatever may be the number you ſet her with, be careful that they are freſh and free from blemiſh.

When you put the eggs under her, it will be neceſſary to make ſome particular mark on one ſide of them, and to obſerve whether ſhe turns them from that to the other: if ſhe does not, then take an opportunity, when ſhe is from them, to turn them yourſelf.

Be careful that the eggs you ſet her with be new, which may be known by their being heavy, full, and clear; neither ſhould you chuſe the largeſt, for they have often two yolks, and though ſome are of opinion that ſuch will produce two chickens, it commonly proves a miſtake; but if they do, the production is generally abortive.

If a hen is diſturbed from her neſt, ſhe will entirely forſake it; and you muſt be careful to place her meat and water near her during the time ſhe is ſitting, that her eggs may not cool while ſhe is gone to ſeek for food: if ſhe be abſent from her neſt, ſtir up the ſtraw, make it ſoft and handſome, and lay the eggs in the ſame order you found them.

It may not be improper to perfume her neſt with roſemary or brimſtone; and you muſt take care that the cock does not come at the eggs, and ſit upon them; for he will not only endanger the breaking of them, but will cauſe the hen to diſlike her neſt.

Your hen-houſe muſt be large and ſpacious, with a high roof and ſtrong walls, to keep out thieves and vermin; let there be windows on the eaſt ſide, that they may enjoy the benefit of the riſing ſun, and theſe muſt be ſtrongly lathed and cloſe ſhut; upwards, and round about the inſides of the walls upon the ground, ſhould be made large pens of three feet high for geeſe, ducks, and large fowls, to ſit in, and near unto the evings of the houſe ſhould be long perches, reaching from one ſide to the other, on which ſhould be ſet cocks, hens, capons, and turkies. At another ſide of the houſe, at the darkeſt part, over the ground-pens, fix hampers full of ſtraw for neſts, in which the hens ſhould lay their eggs; but, when they ſit to hatch chickens, then let them ſit on the ground.

There muſt be pins ſtuck in the walls, that the poultry may climb to their perches with greater eaſe.

The floor of the hen-houſe muſt not be paved, but made of earth, ſmooth and eaſy. Let the ſmaller fowl have a hole made at one end of the houſe, to go in and come out when they pleaſe, otherwiſe they will ſeek out a rooſt in other places; but for larger fowl, you may open the door every night and morning.

The moſt advantageous ſituation for a hen-houſe is near ſome kitchen, brew-houſe, bake-houſe, or kiln, where it may have the air of the fire and be perfumed with ſmoak, which to pullets is not only wholeſome, but agreeable. When your chickens are hatched, if any be weaker than the reſt, wrap them in wool, and let them receive the benefit of the fire; it will alſo be neceſſary to perfume them with roſemary. The firſt hatched chickens may be kept in a ſieve till the reſt are diſcloſed, for they will not eat for two days: ſome ſhells being harder than others, they will require ſo much more time in opening; but unleſs the chickens are weak, or the hen unkind, it will not be improper to let them continue under her, as they will thereby receive the greater nouriſhment.

Two days after they are hatched, give them very ſmall oatmeal, ſome dry, and ſome ſteeped in milk, or elſe crumbs of fine white bread: and, when they have gained ſtrength, you may give them curds, cheeſe-parings, white bread, cruſts ſoaked in beer or milk, barley-meal, or wheaten bread ſcalded, or the like ſoft meat that is ſmall, and will be eaſily digeſted.

They muſt be kept in the houſe a fortnight, and not ſuffered to go abroad with the hens to worm. Green chives chopped among their meat is very good, and will preſerve them from the rye or other diſeaſes in the head. Be careful to let them have clean water, for, if it is dirty, it will be apt to give them the pip. Neither muſt

muſt you let them feed upon tares, darnel, or cockle, for theſe are very dangerous to young ones, nor let them go into gardens till they are ſix weeks old.

Thoſe chickens you intend to cram muſt be cooped up when the dam has forſaken them, and cram them with dough made of wheaten meal and milk, which dip in the latter, and thruſt down their throats; but be careful they are not too big, as it will otherwiſe choak them. If you want to fatten chickens, put them into coops, and feed them with barley-meal. Put likewiſe a ſmall quantity of brick-duſt into their water, for that will not only give them an appetite to their meat, but will fatten them very ſoon. For in this caſe it muſt be conſidered, that all fowls and other birds have two ſtomachs; the one is their crop that ſoftens their food, and the other the gizzard that macerates it. In the laſt are generally found ſmall ſtones and ſharp ſand, which help to do that office, and without them, or ſomething of that kind, a fowl will be wanting of its appetite; for the gizzard cannot macerate or grind the food faſt enough to diſcharge it from the crop without ſuch ſand or ſtones, and therefore, in this caſe, the brick-duſt is very uſeful.

The diſeaſes incident to hens are as follow: Sitting hens are ſometimes troubled with lice, and vermin; to cure which

Pound burnt cummin and ſtaphiſagar, of each equal quantities, mix it with wine, and rub them with it, or waſh them with a decoction of wild lupines.

If hens are troubled with a looſeneſs, obſerve the following:

Mix a handful of barley-meal, and as much wax, in ſome wine; make it into a meſs, and give it them in the morning before they have any other meat, or elſe let them drink a decoction of quinces or apples.

It ſometimes happens that hens, by laying too many eggs, or ſitting too long, exhauſt their ſtrength and languiſh.

Take the white of an egg, and roaſt it till it appears burnt; mix this with an equal quantity of dried raiſins, alſo burnt, and give it them the firſt thing in the morning. *See* POULTRY.

FOX HUNTING. The ſhape and proportion of this beaſt is ſo well known, being ſo common, that it is needleſs to deſcribe him.

A fox in the firſt year is called a cub; in the ſecond a ſoſe; and afterwards an old fox. It is a beaſt of chaſe, uſually very prejudicial to the huſbandmen, by taking away and deſtroying lambs, geeſe, poultry, &c.

His nature is, in many reſpects, like that of a wolf, for they bring as many cubs at a litter the one as the other; but in this they differ, the fox littering deep under the ground, but the wolf doth not.

A bitch fox is very difficult to be taken when ſhe is bragged and with cub, for then ſhe will lie near her burrow, into which ſhe runs upon hearing the leaſt noiſe: and indeed at any time is ſomewhat difficult, for the fox (as well as the wolf) is a very ſubtle crafty creature.

Fox hunting is a very pleaſant exerciſe, for by reaſon of his ſtrong, hot ſcent, he makes an excellent cry: and as his ſcent is hotteſt at hand, ſo it dies the ſooneſt.

And beſides, he never flies far before the hounds, truſting not to his legs, ſtrength, or champaign grounds, but ſtrongeſt coverts. When he can no longer ſtand before the ground, he then taketh earth, and muſt be dug out.

If greyhounds courſe him on a plain, his laſt refuge is to piſs on his tail, and flap it in their faces as they come near him; and ſometimes ſquirting his thicker excrements upon them, to make them give over the courſe or purſuit.

When a bitch fox goes a clicketting and ſeeking for a dog, ſhe cries with a hollow voice, not unlike the howling of a mad dog, and in the ſame manner ſhe cries when ſhe miſſes any of her cubs: but never makes any cry at all when ſhe is killing, but defends herſelf to the laſt gaſp.

A fox will prey upon any thing that he can overcome, and will feed upon any ſort of carrion: but their dainties, and the food they moſt delight in, is poultry.

The fox is taken with greyhounds, terriers, nets, and gins. Of terriers there are two ſorts. *See* TERRIERS.

Fox Hunting above Ground.

To hunt a fox with hounds you muſt draw about groves, thickets, and buſhes, near villages: for in ſuch places he lurks to prey upon poultry, *&c.* but if you can find one it will be neceſſary to ſtop up his earth, the night before you intend to hunt, and that about midnight, for then he goes out to prey; and this muſt be done by laying two white ſticks acroſs in his way, which will make him imagine it to be ſome gin or trap laid for him, or elſe they may be ſtopped up cloſe with black thorns and earth together.

The beſt hunting a fox above ground, is in *January*, *February*, and *March*, for then you ſhall beſt ſee your hounds hunting, and beſt find his earthing; and beſides at thoſe times the fox's ſkin is beſt in ſeaſon.

Again, the hounds hunt the fox beſt in the coldeſt weather, becauſe he leaveth a very ſtrong ſcent behind him; yet in cold weather it chills faſteſt.

At firſt only caſt off your ſure finders, and as the drag mends, ſo add more as you dare truſt them; avoid caſting off too many hounds at once; becauſe woods and coverts are full of ſundry chaſes, and ſo you may engage them in too many at one time.

Let ſuch as you caſt off at firſt, be old ſtaunch hounds which are ſure, and if you hear ſuch a hound call on merrily, you may caſt off ſome others to him, and when they run it on the full cry, caſt off the reſt, and thus you ſhould compleat your chaſe.

The words of comfort are the ſame which are uſed in other chaſes, attended with the ſame hallooings and other ceremonies.

The

The hounds ſhould be left to kill the fox themſelves, and to worry and tear him as much as they pleaſe: ſome hounds will eat him with eagerneſs.

When he is dead hang him at the end of a pikeſtaff, and halloo in all your hounds to bay him; but reward them not with any thing belonging to the fox: for it is not good, neither will the hounds in common eat it.

Of hunting a Fox under Ground.

If in caſe a fox does ſo far eſcape as to earth, countrymen muſt be got together with ſhovels, ſpades, mattocks, pickaxes, &c. to dig him out, if they think the earth not too great.

They make their earths as near as they can in ground that is hard to dig, as in clay, ſtony ground, or amongſt the roots of trees: and their earths have commonly but one hole; and that is ſtraight a long way in before you come at their couch.

Sometimes craftily they take poſſeſſion of a badger's old burrow, which hath a variety of chambers, holes, and angles.

Now to facilitate this way of hunting the fox, the huntſmen muſt be provided with one or two terriers to put into the earth after him, that is to fix him into an angle: for the earth often conſiſts of many angles: the uſe of the terrier is to know where he lies, for as ſoon as he finds him he continues baying or barking, ſo that which way the noiſe is heard that way dig for him.

But to know the manner of entering and farther uſe of theſe ſorts of dogs, *ſee* TERRIER.

However I ſhall here add, that as in the firſt place you muſt have ſuch as are able to dig, ſo your terriers muſt be furniſhed with bells hung on collars, to make the fox bolt the ſooner; beſides the collars will be ſome ſmall defence to the terriers.

The inſtruments to dig with are theſe; a ſharp pointed ſpade, which ſerves to begin the trench, where the ground is hardeſt, and broader tools will not ſo well enter; the round hollowed ſpade, which is uſeful to dig among roots, having very ſharp edges; the broad flat ſpade to dig withal, when the trench has been pretty well opened, and the ground ſofter; mattocks and pickaxes to dig in hard ground, where a ſpade will do but little ſervice; the coal rake to cleanſe the hole; and to keep it from ſtopping up, clamps, wherewith you may take either fox or badger out alive to make ſport with afterwards.

And it would be very convenient to have a pail of water to refreſh your terriers with, after they are come out of the earth to take breath.

After this manner you may beſiege a fox, &c. in their ſtrongeſt holes and caſtles, and may break their caſemates, platforms, parapets, and work to them with mines and counter-mines till you have obtained what you deſired. But for the managing theſe dogs, *ſee* TERRIERS.

To deſtroy Foxes.

Take a ſheep's paunch, and tie it to a long ſtick, then rub your ſhoes well upon it, that he may not ſcent your own feet; draw this paunch after you as a trail, a mile or more, and bring it near ſome thick-headed tree; leave your paunch, and get into the tree with a gun, and as it begins to be dark, you will ſee him come after the ſcent of the mail, where you may ſhoot him: draw the trail if you can to the windward of the tree.

The beſt way is, to ſet a ſteel trap in the plain parts of a large field, out of the way of all paths, yet not near a hedge, or any ſhelter; then open the trap, ſet it on the ground, and cut out juſt the form thereof in a turf, and take out as much earth as to make room to ſtay it; then cover it again very neatly with the turf you cut out; and as the joint of the turf will not cloſe exactly, get ſome mold of a new caſt up mole-hole, and put it cloſe round the turf, ſticking ſome graſs in it as if it there grew; make it curious and neat, that it might even deceive yourſelf. Ten or twelve yards from the trap, three ſeveral ways, ſcatter ſome of the mole-hill mold very thin, on a place fifteen or ſixteen inches ſquare; then on theſe places, and where the trap is placed, lay three or four ſmall bits of cheeſe, and then with a ſheep's paunch draw a trail of a mile or two long to each of the three places, and from thence to the trap, that the fox may come to one of theſe places firſt, for then he will approach the trap more boldly; and thus you will never fail of him. Be ſure let your trap be looſe, that he may draw it to ſome hedge or covert, or he will bite off his leg and be gone.

To make a Spring Trap.

Tie a ſtring to ſome pole ſet faſt in the ground, and to this ſtring make faſt a ſmall, ſhort ſtick, made thin on the upper ſide, with a notch at the lower end of it; then ſet another ſtick faſt in the ground, with a nitch under it; then bend down the pole, and let both the nicks or notches join as ſlight as may be; then open the nooſe of the ſtring, and place it in the path or walk; where if you lay pieces of cheeſe, fleſh, and ſuch like, it will entice him that way.

Or, greaſe the ſoles of your ſhoes with hog's fat a little broiled, and as you come from the wood, drop in ſeveral places as you paſs, a piece of roaſted ſwine's liver, dipt in honey, drawing after you a dead cat, and he will follow you, ſo that you may ſhoot him.

A Hook to take a Fox tied to a Tree.

This hook is made of large wire, and turns on a ſwivel like the collar of a greyhound; it is frequently uſed in catching wolves, but oftener for the fox. They hang

hang it from the ground ſo high that he muſt leap to catch it; and bait it with fleſh, liver, cheeſe, &c. and if you run a trail with a ſheep's paunch as before directed, it will draw him the more eaſily to the bait.

FOILING (with Hunters) the footing and treading of deer that is on the graſs, and ſcarce viſible.

FRANK CHASE, is a liberty of free chaſe in a circuit adjoining to a foreſt, by which all men, though they have land of their own within that compaſs, are forbidden to cut down wood, &c. without the view of the foreſter.

FRAY. A deer is ſaid to fray her head, when ſhe rubs it againſt a tree to renew it, or cauſe the pills of her new horns to come off.

FREAM (with Hunters) a term uſed of a boar, that makes a noiſe at rutting time.

FREE WARREN, the power of granting or denying licence to any to hunt or chaſe in ſuch or ſuch lands.

To FRILL (in Falconry) a term uſed of a hawk; as the hawk frills, *i. e.* trembles or ſhivers.

FROG (among Farriers) the ſame as FRUSH.

FROGS; to deſtroy which, take a ſheep, ox, or goat's gall, and bruiſe it by the water-ſide; the frogs will gather to it, and it will kill them.

To prevent their croaking, ſet a candle and lanthorn upon the ſide of the water or river that waters your garden.

Toads will not come near your garden, if you plant ſage and rue round about it.

FROTH. The mouth of a horſe ſhould be full of froth, and if he continually champ upon the mouth of his bitt, it is a token of a good horſe: for few bad ones have this action; beſides that, his mouth being always moiſt, will not ſo eaſily over-heat, and it is a ſign that the bitt gives him pleaſure.

If the froth be thin or fluced, and of a pale grey, or yellowiſh colour, it denotes a bad tempered brain; but if it be white and thick, cleaving to his lips and branches of the bridle, then you are to look upon the mouth as freſh, and that the horſe is of a ſtrong conſtitution and ſound in his body.

FROWNCE } a diſeaſe incident to hawks, pro-
FROUNCE } ceeding from moiſt and cold humours, which fall down from their heads to the palate and root of their tongue, by which means they loſe their appetite, and cannot cloſe their clap.

Some call this the eagles bane, for they ſeldom die of age but of the over-growing of their beaks.

FRUSH, OR FROG OF A HORSE, is a ſort of tender horn which ariſes in the middle of the ſole, and at ſome diſtance from the toe, divides into two branches, running towards the heel in the form of a fork. Thus they ſay,

Look after this horſe, for the fleſh is run in upon the fruſh; I ſee an excreſcence, or ſprouting of fleſh in that part.

There is a fig in that ſorrel's fruſh; and this roan has a ſcabbed fruſh; and here is another that has a fat fruſh, *i. e.* a fruſh that is too thick and too large.

FRUSH, a diſorder incident to horſes, *ſee* SCABBED HEELS.

FULMART, OR FUMER; a pole-cat, fitch or fitchow.

FUMETS, the ordure or dung of a hart, the ſame as ſewmets.

FUNDAMENT, ON FALLING OF, IN HORSES. This may be occaſioned by long continued looſeneſs or ſcouring, and horſes of a lax and waſhy conſtitution are moſt ſubject to it. It is produced by long journeys, or hard labour with inſufficient nouriſhment. The defect is frequent with over-driven pigs, which I have often attempted to cure, with very ill ſucceſs. SOLLEYSEL ſays, it was ſometimes brought on horſes, in his time, by docking.

In the Cure no time ought to be loſt. If the gut deſcend to any great length, and be much ſwelled and inflamed, waſh with warm milk and *aqua vegeto* equal parts, and ſuſpend it; repeat the waſhing, and when the inflammation is abated, anoint with oil of roſes, chamomile, or dill, and a ſmall quantity of Friar's-balſam, and gently with a warm linen cloth return the gut to its proper place. Bathe the fundament frequently with the following mixture: Red-Port wine and camphorated ſpirits, a quarter of a pint each; GOULARD's extract, forty drops. A compoſition of oak-bark, flour, honey, and turpentine, applied frequently to the fundament. Maſhes of malt, or corn and bran, and the animal kept very quiet, with the moſt gentle uſage. Should the gut not remain, or fall down in exerciſe, and ſhrink up again in the ſtable, it is the ſign of a fiſtula, and the only remedy is exciſion, which muſt be performed with a red-hot knife, a ligature being previouſly made. The wound being healed, a pretty long run at graſs or ſtraw yard; previous to which it will not be ſafe to work the horſe.

FUNDAMENT, FALLING OUT OF, IN SWINE; the Cure:

Put it up as well as you can with your hand, dipt in oil of linſeed or other oil, when you have firſt ſprinkled it with powder of aloes and alum.

FUNGUS OR PROUD-FLESH, in horſes or other animals; to remove it,

Take of roſin and common turpentine, of each four ounces, honey two ounces, ſheep-ſuet three ounces; melt the roſin and turpentine firſt, then add the honey and ſheep's-ſuet; and laſtly, ſtir in by degrees (and till the whole is almoſt cold) half an ounce of powdered *French* verdigris, and keep for uſe; but, if it is too ſtiff for winter, you may add ſome hog's lard or freſh butter. This ointment is recommended by Mr. BRACKEN, who ſays there is another ointment much like this in Capt. BURDEN's *Pocket-Farrier*, taken from De GREY; but he thinks there is too much hog's-lard in that compoſition, which makes it generate fungus fleſh, or what people call proud-fleſh; but, if the ointment before preſcribed be thought too ſtiff, it may be ſoftened with freſh butter, and therefore better prevents ſuperfluous fleſh.

FUZEE (in Farriery) two dangerous ſplents joining from above downwards. They differ from ſcrews or thorough ſplents in this, that the latter are placed on two oppoſite ſides of the legs. *See* SPLENT.

GABLOCKS,

GABLOCKS, artificial ſpurs, made either of iron, braſs, or ſilver, and fixed on the legs of game cocks; ſome call them gaffs.

GAGG-TEETH, (in Farriery) is a defect that rarely happens to young horſes, and to be diſcovered by putting ſomething into the mouth and looking at the large grinders, which in this caſe appear unequal, and in eating catch hold of the inſide of the cheeks, cauſing great pain, and making them refuſe their food.

GAIT OR GATE, is the going, or pace of a horſe. Hence they ſay this horſe has a good gait, but the other has a broken gait; this horſe goes well, but the other does not.

GALLING OF A HORSE'S BACK. To prevent it, take a lamb's ſkin, well furniſhed with hair, and fit it neatly beneath the pannel of the ſaddle, ſo that the hairy ſide may be next the horſe.

This does not harden with ſweat, and ſo not only keeps that part from galling, but is good for ſuch horſes as have been lately cured, which would otherwiſe gall again.

After a journey you ought to take off the ſaddle and feel the horſe's back, whether he has been pinched or galled or not, which will be the beſt diſcovered after he has ſtood an hour or two unſaddled, by the ſwelling of the part oppreſſed.

If it be only ſwelled, fill a bag with warm dung, and tie it upon the ſwelling, which will not only prevent it from growing worſe, but alſo probably quite diſperſe it.

Or you may rub and chafe the ſwelling with good brandy, or ſpirit of wine, and having ſoaked the place well with it, ſet fire with a lighted paper to what remains of it, and the ſwelling will diſappear, when the fire extinguiſhes of itſelf; but if the ſkin be broke, waſh it with warm claret, mixed with a fourth part of ſallad oil, or freſh butter; or bathe it often with brandy if the horſe will endure it.

When a horſe's back is galled upon a journey, take out a little of the ſtuffing of the pannel over the ſwelling, and ſew a piece of ſoft white leather on the inſide of the pannel; anoint the part with ſalt-butter, and every evening wipe it clean, rubbing it till it grows ſoft, anointing it again with butter, or for want of that with greaſe: waſh the ſwelling, or hurt, every evening with cold water and ſoap, and ſtrew it with ſalt, which ſhould be left on till the horſe is ſaddled in the morning.

GALLS. *See* HARNESS.

GALLOP, is a motion of a horſe that runs at full ſpeed, in which making a kind of leap forwards, he lifts both his legs almoſt at the ſame time; when theſe are in the air, juſt upon the point of touching the ground, he lifts both his hind legs almoſt at once.

Of a horſe that has an eaſy light gallop, that gallops fine, they ſay, he gallops upon his haunches, he does not preſs heavy upon the bridle, he bends his fore legs well, he has a good motion with him, he is well coupled, keeps his legs united.

The great gallop, or the hunting gallop; or the gallop with a long ſtretch, or gallop with all the heels, *i. e.* full ſpeed.

A ſhort light gallop, *i. e.* a ſlow gallop.

GALLOP, is the ſwifteſt natural pace of a horſe.

Here you are to take notice, that a horſe in galloping forwards may lead with which fore leg he pleaſes, though horſes do it moſt commonly with their right fore leg; but with whatever fore leg they lead, the hind leg of the ſame ſide muſt follow it, otherwiſe their legs are ſaid to be diſunited.

In order to remedy this diſorder, you muſt ſtay your horſe a little upon the hand, and help him with the ſpur on the contrary ſide to that in which he is diſunited.

As for example: if he be diſunited on the right ſide, help him with the left ſpur, by ſtaying him (as before) upon the hand a little, and alſo helping him at the ſame time with the calves of the legs.

And farther, in a circle a horſe is confined to lead always with his fore-leg within the turn, otherwiſe he is ſaid to gallop falſe; but in all caſes the hind leg of the ſame ſide muſt ever follow.

Laſtly, when you make trial of a galloper, obſerve if he performs it equally, and puſh it on ſomewhat hard, that you may know by his ſtop whether he have ſtrength and vigour, which is termed a fund or ſource, and if he be alſo ſenſible of the ſpur.

GALLOP, OR CANTERBURY-RATE, is a pace between a full ſpeed and a ſwift running.

GALLOPADE. The fine gallopade, the ſhort gallop, the liſtening gallop, the gallop of the ſchool: it is a hand gallop, or gallop upon the hand, in which a horſe galloping upon one or two treads, is well united, and well raccourci knit together, well coupled, and well ſet under him. Hence they ſay,

This horſe makes a gallopade, and works with one haunch, *i. e.* inſtead of going upon one tread, whether right out or in a circle, has one haunch kept in ſubjection, let the turn or change of the hand be what it will; ſo that the inner haunch which looks to the center of the ground, is more narrowed, and comes nearer to that center than the ſhoulder does: and thus the horſe does not go altogether to that ſide, and his way of working is a little more than one tread, and ſomewhat leſs than two.

The difference between working with one haunch in, and galloping upon volts, and managing upon *terra a terra*, is in galloping upon volts, and working *terra a terra*; the two haunches are kept ſubject, and the two haunches are in, that is, within the volt; but in galloping a haunch in, only one is kept ſubject.

To gallop united, to gallop upon a good and right foot, is, when a horſe that gallops right out, having cut the way, or led with either of his fore feet, continues to lift that ſame leg always firſt, ſo that the hinder leg, of a ſide with the leading fore-leg, muſt likewiſe be raiſed ſooner than the other hind leg.

For inſtance; if the right fore leg leads before the left, then the right hind leg muſt likewiſe move ſooner than the left hind leg; and in this order muſt the horſe continue to go on.

To gallop faſt, to diſunite, to drag the haunches, to change feet, to go or run upon falſe feet, to gallop upon the falſe foot, is when the galloper having led

with one of the fore legs, whether right or left, does not continue to make that leg always ſet out firſt, nor to make the hind leg of a ſide with the leading leg, to move before its oppoſite hind leg; that is to ſay, the orderly going is interrupted.

A horſe that gallops falſe, gallops with an unbecoming air, and incommodes the rider.

If your horſe gallops falſe, or diſunite, and if you have a mind to put him upon keeping the right foot, and uniting well his haunches, you muſt bring to with the calves of your legs, and then with the out ſpur, that is, the ſpur that is contrary and oppoſite to the ſide upon which he diſunites: ſo that if he diſunites to the right, you muſt prick him with the left heel.

GAME LAWS. For the information and ſatisfaction of my readers, I have here inſerted abſtracts of all the Acts of Parliament relating to the game, whereby they and ſportſmen may know the reſpective times when they are to begin, and when they are to leave off ſporting, and alſo the penalties and puniſhments of infringing or breaking the above Acts. Agreeable to the Act of 24 GEO. III. certificates required before the firſt day of *October*, 1784, ſhall bear date on the day of the month on which the ſame ſhall be iſſued, and ſhall remain in force until the firſt day of *July* next following. No certificate ſhall iſſue between the firſt day of *October*, 1784, and the firſt day of *March* 1785; and every certificate which ſhall iſſue after the ſaid firſt day of *March*, 1785, ſhall be iſſued between the firſt day of *March* and the firſt day of *July* in each year, and ſhall bear date on the day of the month on which the ſame ſhall be iſſued, and ſhall be in force for twelve calendar months, commencing from the date: and if any clerk of the peace, his deputy, or ſteward clerk, iſſuing certificates, otherwiſe than directed, to forfeit 50*l.* 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 5. But certificates may iſſue to any perſon beyond the ſeas, who hath or ſhall have, in any year, firſt arrived into *England*, any time after the firſt day of *July* in ſuch year; but in every ſuch caſe, the cauſe ſhall be ſpecified, either in the body or at the foot of ſuch certificate; to bear date on the day it is iſſued, being ſtamped with double duties, and to be in force till the firſt day of *July* next following the date thereof, 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 6. Every qualified perſon, after the ſaid firſt day of *October*, 1784, ſhooting at, killing, taking, or ſhooting any pheaſant, partridge, heath-fowl, or black game, or any grouſe, or red game, or any other game, or killing, taking or deſtroying, any hare, with any greyhound, hound, pointer, ſpaniel, ſetting dog, or other dog, without having obtained ſuch certificate, ſhall forfeit the ſum of 50*l.* 24 GEO. III. *ſeſ.* 2. *c.* 34. *ſ.* 7. Clerk of peace, &c. ſhall on or before *November* 1, 1784, and in every ſubſequent year, on or before *Auguſt* 12, in each year, make out and tranſmit to the Stamp-office, *London*, alphabetical liſts of the certificates ſo granted by them, diſtinguiſhing the duties paid on each reſpective certificate ſo iſſued, and on delivery thereof the receiver-general of the ſtamp duties ſhall pay to clerk of peace, &c. for the ſame one farthing a name; and in caſe of neglect or refuſal, or not inſerting a full, true and perfect account, he ſhall forfeit 20*l.* 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 9. Liſts may be inſpected at Stamp-office for 1*s.* each ſearch, 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 10. If any qualified perſon, or having a deputation, ſhall be found in purſuit of game, with gun, dog, or net, or other engine for the deſtruction of game, or taking or killing thereof, and ſhall be required to ſhew his certificate, by the lord or lady of the manor, or proprietor of the land whereon ſuch perſon ſhall be uſing ſuch gun, &c. or by any duly appointed game-keeper, or by any qualified and certified perſon, or by any officer of the ſtamps, properly authorized by the commiſſioner, he ſhall produce his certificate; and if ſuch perſon ſhall refuſe, upon the production of the certificate of the perſon requiring the ſame, to ſhew the certificate granted to him for the like purpoſe; or in caſe of not having ſuch certificate to produce, ſhall refuſe to tell his chriſtian and ſurname, and his place of reſidence, and name of the county where his certificate was iſſued, or ſhall give in any falſe or fictitious name, he hall forfeit 50*l.* 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 12. Certificates do not authorize any perſon to ſhoot at, kill, take or deſtroy any game, at any time that is prohibited by law, nor give any perſon a right to ſhoot at, &c. unleſs he be duly qualified by law, 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 13. No certificate, obtained under any deputation, ſhall be pleaded or given in evidence, where any perſon ſhall ſhoot at, &c. any game out of the manor or lands for which it was given, 24 GEO. III. *ſeſ.* 2. *c.* 43. *ſ.* 14.

Deſtroying conies, tranſportation, 5 GEO. III. *c.* 14. Robbing warrens, felony without clergy, 9 GEO. I. *ſ.* 22. Killing them in the night, or endeavouring to kill them, fine of 10*s.* or commitment, 22 and 23 CAR. II. *c.* 25. *ſ.* 5, 6. Unqualified perſons uſing guns to kill the ſame may be ſeiſed, 3 JAC. I. *c.* 13. *ſ.* 5. Stalking deer without leave, 10*l.* 19 HEN. VII. *c.* 11. Hunting or killing them, 10*l.* coſts, and ſureties for good behaviour, 5 ELIZ. *c.* 21. Buck-ſtalls or engines kept by unqualified perſons, may be ſeized, 3 JAC. I. *c.* 13. Selling or buying them to ſell again, 40*s.* 3 JAC. I. *c.* 27. Courſing or killing them without conſent, 20*l.* 13 CAR. II. *c.* 10. Hunting, taking, killing, or wounding, 30*l.* or tranſportation, 3 WILL. III. *c.* 10. 5 GEO. I. *c.* 15. 9 GEO. I. *c.* 22. 10 GEO. II. *c.* 32. Deſtroying pales or walls of incloſed grounds without conſent, 30*l.* 5 GEO. I. *c.* 15. *ſ.* 6. Keeper of park killing or taking them, 50*l.* 5 GEO. I. *c.* 15. Robbing places where kept, felony without clergy, 9 GEO. I. *c.* 22.

All lords of manors or other royalties may appoint game-keepers, 22 and 23 CAR. II. *c.* 25, *ſ.* 2. and empower them to kill game, 2 *Burn's Juſt.* 225. But if he diſpoſes of game without the lord's conſent, he ſhall be committed for three months, and kept to hard labour, 5 ANNE, *c.* 14. *ſ.* 4. But no lord ſhall make above one game-keeper within one manor, with power to kill game, and his name ſhall be entered with clerk of peace; certificate whereof ſhall be granted by clerk of peace, on payment of one ſhilling. Unqualified game-keepers killing or ſelling hare, pheaſant, partridge, moor, heath-game or grouſe, he ſhall forfeit 5*l.*

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by diſtreſs, or commitment for three months, for the firſt offence, and for every other four. 9 ANNE, *c.* 21. *ſ.* 1. No lord ſhall appoint unqualified game-keeper, or one who is not *bona fide* ſervant to ſuch lord, or immediately employed and appointed to take and kill game for ſole uſe of lord; other perſons under colour of authority for taking and killing game, or keeping any dogs or engines whatſoever for that purpoſe, ſhall forfeit 5*l.* In like manner, 3 GEO. I. *c.* 11. *ſ.* 1. Every deputation of a game-keeper to be regiſtered with clerk of the peace, or in the ſheriff or ſteward's court books of the county where lands lie, and annually take out certificate thereof, ſtamped with an half-guinea ſtamp, 24 GEO. III. *ſeſſ.* 2. *c.* 43. *ſ.* 1. Every game-keeper, from and after the paſſing of this act, who ſhall ſo deliver his name and place of abode as aforeſaid, and require a certificate, ſhall be annually intitled thereto, ſtamped as before directed from clerk of peace or his deputy, ſheriff, or ſteward's clerk, to the effect of the form in the act ſet forth, 24 GEO. III. *ſeſſ.* 2. *c.* 43. *ſ.* 3. Clerk of peace, *&c.* after ſigning certificate, ſhall iſſue ſame ſtamped to perſon regiſtering deputation, on requiring ſame, for which he may receive 1*s.* 24 GEO. III. *ſeſſ.* 2. *c.* 43. *ſ.* 4. Neglecting, or refuſal of iſſuing certificates, incurs a forfeiture of 50*l.* 24 GEO. III. *ſ.* 2. *c.* 43. *ſ.* 4. recoverable in courts of *Weſtminſter*, court of Seſſion, of Juſticiary, or Exchequer in *Scotland*, by action of debt or information, for the uſe of the plaintiff, with double coſts of ſuit, 24 GEO. III. *ſ.* 2. *c.* 43. *ſ.* 18. And moreover be liable to pay the duty on ſuch certificate, 24 GEO. III. *ſ.* 2. *c.* 43. *ſ.* 4. Clerk of peace, *&c.* may iſſue his certificate to any game-keeper firſt appointed in any year after firſt *July* in that year, 24 GEO. III. *ſ.* 2. *c.* 46. *ſ.* 6. If any lord or lady of a manor, or proprietor of land, ſhall make any new appointment of a game-keeper, and ſhall regiſter deputation with clerk of peace, *&c.* and obtain a new certificate thereon, the firſt ſhall be void; any perſon acting under the ſame, after notice, ſhall be liable to all the penalties of the game laws, and thoſe againſt unqualified perſons, 24 GEO. III. *ſ.* 2. *c.* 43. *ſ.* 11.

Every perſon tracing or courſing hares in the ſnow ſhall be committed for one year, 31 ELIZ. *c.* 5. unleſs he pay to churchwardens, for the uſe of the poor, 20*s.* for every hare, or become bound by recognizances with two ſureties in 20*l.* a-piece, not to offend again; and every perſon taking or deſtroying hares with any ſort of engine, ſhall forfeit for every hare, 20*s.* in like manner, 1 JAC. I. *c.* 27. *ſ.* 2. Perſons found uſing engines liable to puniſhment inflicted by 31 ELIZ. *c.* 5. See above, and 22 and 23 CAR. II. *c.* 25. *ſ.* 6. Unqualified perſons keeping or uſing ſhooting dogs, or engines to kill or deſtroy hares, ſhall forfeit 5*l.* to the informer, with double coſts, 2 GEO. III. *c.* 19. by diſtreſs, or committed for three months for firſt offence, and for every other four, 5 ANNE, *c.* 14. *ſ.* 4. Taking or killing hare in the night-time, forfeit 5*l.* 9 ANNE, *c.* 25. *ſ.* 3. The whole to the informer, with double coſts, 2 GEO. III. *c.* 19. as directed by 5 ANNE, *c.* 14. 9 ANNE, *c.* 25. *ſ.* 3. Killing or taking with gun, dog, or engine, hare in the night, between the hours of ſeven at night and ſix in the morning, from *October* 12 to *February* 12, and between the hours of nine at night and four in the morning, from *February* 12 to *October* 12, or in the day-time upon *Sunday* or *Chriſtmas-day*, to forfeit not leſs than 10*l.* nor more than 20*l.* for the firſt offence; nor leſs than 20*l.* nor more than 30*l.* for the ſecond offence; and 50*l.* for the third offence; with coſts and charges; and, upon neglect or refuſal be committed for ſix or twelve calendar months, and may be publicly whipped; final appeal to quarter ſeſſions, 13 GEO. III. *c.* 80. Perſons armed and diſguiſed ſtealing them, felony without clergy, 9 GEO. I. *c.* 22. Higler, chapman, carrier, inn-keeper, victualler, or alehouſe-keeper, having in his cuſtody, or buying, ſelling, or offering to ſale, any hare, unleſs ſent up by ſome perſon qualified, (or any perſon ſelling, expoſing, or offering to ſale, hares, 28 GEO. II. *c.* 22.) ſhall forfeit for every hare, 5*l.* the whole to informer, 2 GEO. III. *c.* 19.

For preſerving heath-cocks or polts, no perſon whatſoever, on any waſte, ſhall preſume to burn, between *February* 2 and *June* 24, any grig, ling, heath, furze, goſs, or fern, on pain of commitment for a month, or ten days, to be whipped and kept to hard labour, 4 and 5 W. and M. *c.* 23. *ſ.* 11. Shooting heath-cocks, grouſe, or moor-game, contrary to 1 JAC. I. *c.* 27. *ſ.* 2. and killing any of them in the night, or uſing gun, dog, or engine, with ſuch intent, contrary to 9 ANNE, *c.* 25, and 13 GEO. III. *c.* 80. And carriers and others having ſuch game in their poſſeſſion, contrary to 9 ANNE, *c.* 14. are liable to the ſame penalties, and recoverable in ſame manner as thoſe offences are ſubjected to in regard to ſhooting, *&c.* hares.

Officers of the army, without leave of the lord of the manor, deſtroying coney, hare, pigeon, pheaſant, or partridge, or his Majeſty's game, ſhall forfeit 5*l.* to the poor; and the commanding officer, for every offence, committed by any ſoldier under his command, ſhall forfeit 20*s.* in like manner; and if, upon demand, he ſhall not in two days pay ſaid penalty, he ſhall forfeit his commiſſion. *Vide* The yearly Mutiny Act.

Taking partridges, by nets or other engines, upon another's freehold, without ſpecial licence of owner of ſame, 10*l.* half to him who ſhall ſue, and half to owner or poſſeſſioner, 11 HEN. VII. *c.* 17. Shooting at, *&c.* partridges, with gun or bow, or taking, *&c.* them with dogs or nets, by 7 JAC. I. *c.* 11. or taking their eggs out of their neſts, liable as perſons ſhooting at, *&c.* hares, and alſo 20*s.* for every bird or egg, as is ſhewn in the preceding pages concerning Hares. Selling, or buying to ſell again, a partridge, (except reared and brought up in houſes, or from beyond ſea) forfeit for every partridge 10*s.* half to him who will ſue, and half to informer, 1 JAC. I. *c.* 27. *ſ.* 4. Taking, killing, or deſtroying partridges in the night forfeits for every partridge, 10*s.* half to him who will ſue, and half to lord of the manor, unleſs he licenſe, or cauſe the ſaid taking and killing, in which caſe his half ſhall go to the poor, recoverable by churchwarden; and if not paid in ten days, to be impriſoned for one month; and moreover, ſhall give bond to juſtice, with good ſureties not to offend again for two

ears, 23 Eliz. *c.* 10. To kill a partridge in the ight is 5*l.* penalty, 9 Anne, *c.* 25. *ſ.* 3. the whole whereof is given to the informer, 2 Geo. III. *c.* 19. and may be recovered within three months, 5 Anne, *c.* 14 before a juſtice of the peace, or within ſix months, by action in Court of Record at *Weſtminſter*, 9 Anne, *c.* 25. with double coſts, 2 Geo. III. *c.* 19. Keeping or uſing any greyhounds, ſetting-dogs, or any engine for deſtroying partridges, 5*l.* to be levied and recovered as the like penalty for killing hares, by 5 Anne, *c.* 4. *ſ.* 4. as before is ſhewn. Penalties for uſing gun, dog, ſnare, net, or other engine, with intent to take or deſtroy partridges in the night, or on *Sunday* or *Chriſtmas-day*, ſame as uſing them againſt hares, by 13 Geo. III. *c.* 80. as in the foregoing page. Carriers and others having partridges in their poſſeſſion, liable to ſame forfeitures as having hares; and the ſame laws againſt ſhooting them as for ſhooting hares.

All the laws reſpecting the penalties and recovery of them, for taking them by nets, ſnare, or other engines, without licenſe of the owner, by Hen. VII. *c.* 17. And for ſhooting, or deſtroying them with dogs or ſnares, &c. by 7 Jac. I. *c.* 11. or taking their eggs, by 1 Jac. I. *c.* 27. *ſ.* 2. And for ſelling, and buying them to ſell again, by laſt cited act (except that the penalty for a pheaſant is 20*s.*) and for deſtroying them in the night (excepting as aforeſaid) by 23 Eliz. *c.* 10. 9 Anne, *c.* 25. *ſ.* 3. and 13 Geo. III. *c.* 80. And for keeping or uſing ſporting-dogs or engines for deſtroying them, by 5 Anne, *c.* 14. *ſ.* 4. Or for uſing gun, dog, or net, for deſtroying them on *Sunday*, or *Chriſtmas-day*, by 13 Geo. III. *c.* 80. and for carriers and others having them in their poſſeſſion; all theſe laws are *mutatis mutandis verbatim*, the ſame as thoſe reſpecting partridges.

Perſon proſecuted for any thing done in purſuance of this act, he may plead the general iſſue, and give the ſpecial matter in evidence for his defence; and if upon trial verdict paſs for defendant, or plaintiff become nonſuited, defendant ſhall have treble coſts of plaintiff, 24 Geo. III. *ſeſ.* 2. *c.* 3. *ſ.* 24.

Qualifications for killing game (beſides the late new tax) are, 1. Having a freehold eſtate of 100*l. per annum*, 22 and 23 Car. II. *c.* 25. 2. A leaſehold eſtate, for 99 years, of 150*l. per annum*. 3. The eldeſt ſon or heir-apparent to an eſquire, or perſon of ſuperior degree. 4. The owner or keeper of a foreſt, park, chaſe, or warren. See Bl. *Com.* 174, 175. Unqualified perſon keeping dogs or engines to deſtroy the game, to forfeit 5*l.* 5 Anne, *c.* 14. Reſtrictions in the laws concerning the preſervation of game, ſeems to affect all perſons whomſoever, whether qualified or not, 2 Burn's *Juſt.* 219, 248. No perſon (other than the King's ſon) unleſs he have lands of freehold to the value of five marks a-year, ſhall have any game of ſwans, on pain of forfeiting them, half to the King, and half to any perſon (ſo qualified) who ſhall ſeize the ſame, 22 Edw. IV. *c.* 6. Any gentleman or other that may diſpend 40*s.* a-year freehold, may hunt and take wild fowl with their ſpaniels only, without uſing a net or other engine, except the long-bow, 25 Hen. VIII. *c.* 11. From perſons not having lands of 40*l.* a-year, or not worth in goods 200*l.* uſing gun or bow to kill deer, any perſon having 100*l.* may ſeize ſame to his own uſe, 3 Jac. I. *c.* 13. Killing in the night, between the hours of nine at night, and four in the morning, from *February* 12 to *October* 12, any game, by any perſon, whether qualified or not, ſubject to ſame penalties as killing hares at that time of night, by 13 Geo. III. *c.* 80. as has been already ſhewn. Every perſon qualified to kill game, ſhall, previous to his ſhooting at, killing, or deſtroying any game, deliver in writing his name and place of abode, if in *England*, to the clerk of the peace, if in *Scotland*, to the ſheriff or ſteward clerk of the county where reſident, and annually take out a certificate thereof, ſtamped with a two guinea ſtamp, 24 Geo. III. *ſeſ.* 2. *c.* 43. *ſ.* 1. and from and after the paſſing of this act, every ſuch qualified perſon who ſhall ſo deliver in *England* or *Scotland*, his name and place of abode as aforeſaid, and require a certificate thereof, ſhall be annually entitled thereto, ſtamped as aforeſaid, from clerk of peace or his deputy, ſheriff, or ſteward clerk, to the effect of the form in the act ſet forth, 24 Geo. III. *ſeſ.* 2. *c.* 43. *ſ.* 3. Clerk of peace, &c. after he ſhall have ſigned ſuch certificate, ſhall forthwith iſſue the ſame, ſtamped, to the perſon ſo delivering in his name and place of abode, and requiring the ſame, for which he ſhall be entitled to receive 1*s.* for his own trouble, 24 Geo. III. *ſeſ.* 2. *c.* 43. *ſ.* 4. Neglect in, or refuſal of iſſuing certificates, incurs like forfeiture, and which are recoverable in like manner, and with ſame coſts as to game-keepers, which ſee; beſides liable to pay the duty on ſuch certificate, 24 Geo. III. *ſeſ.* 2. *c.* 43. *ſ.* 4.

The time for ſporting in the day is, from one hour before ſun-riſing, until one hour after ſun-ſetting, 10 Geo. III. *c.* 19. The ſporting ſeaſon for buſtards is from *December* 1 to *March* 1. For grouſe or red-game, from *Auguſt* 12 to *December* 10. Hares may be killed all the year, under the reſtriction in 10 Geo. III. *c.* 19. Heath-fowl, or black game, from *Auguſt* 20 to *December* 20, 13 Geo. III. *c.* 55. Pheaſants, from *October* 1 to *February* 1. Partridges, from *September* 1 to *February* 12, 2 Geo. III. *c.* 19. Fowls, widgeons, wild-ducks, wild-geeſe, at any time, but in *June*, *July*, *Auguſt*, and *September*, 10. Geo. III. *c.* 32.

From and after *October* 1, 1784, in all caſes where the penalty by this act does not exceed 20*l.* juſtice of peace ſhall, upon information or complaint, ſummon the party and witneſſes to appear, and proceed to hear and determine the matter in a ſummary way, and upon due proof by confeſſion, or upon the oath of one witneſs, give judgment for the forfeiture; and iſſue his warrant for levying the ſame on offender's goods, and to ſell them, if not redeemed within ſix days, rendering to party overplus, and if his goods be inſufficient to anſwer the penalty, ſhall commit offender to priſon, there to be for ſix calendar months, unleſs penalty be ſooner paid; and if party be aggrieved by the judgment, he may, upon giving ſecurity amounting to value of forfeiture, with the coſts of affirmance, appeal to the next general quarter ſeſſions, when it is to be heard and finally determined; and in caſe the judgment be affirmed, ſeſſions may award ſuch coſts incurred by appeal, as to themſelves ſhall ſeem meet, 24 Geo. III. *ſeſ.* 2. *c.* 43. *ſ.* 19.

Witneſſes

Witneſſes neglecting or refuſing to appear, without reaſonable excuſe, to be allowed of by the juſtice, ſhall reſpectively forfeit, for every offence, 10*l.* to be levied and paid as other penalties, by this act 24 GEO. III. *ſeſſ.* 2. *c.* 34. *ſ.* 20. Juſtice to cauſe conviction to be made out to the effect of the form ſet forth in the act 24 GEO. III. *ſeſſ.* 2. *c.* 43. *ſ.* 21. Juſtice may mitigate penalties as he thinks fit, ſo that the reaſonable coſts and charges of officers and informers, for diſcovery and proſecution, be always allowed, over and above mitigation, and ſo as ſame does not reduce the penalty to leſs than a moiety, over and above the coſts and charges, 24 GEO. III *ſſ.* 2. *c.* 43. *ſ.* 22.

It is felony to take any ſwans that be lawfully marked, though they be at large; and ſo it is with unmarked ſwans, if they be domeſtical or tame, ſo long as they keep within a man's manor, or within his private rivers, or if they happen to eſcape from them, and are purſued and taken, and brought back again; but if they be abroad, and attain their natural liberty, then the property of them is loſt, and ſo long felony cannot be committed by taking them, BURN's *Juſt. Tit.* Game

Same laws againſt ſhooting wild fowls as for ſhooting hares, by 1 JAC. I. *c.* 27. *ſ.* 2.

I have here alſo added an abſtract from the late act of parliament for preventing the ſtealing of dogs, which ſhews the great regard the legiſlature has to the canine race.

By the ſtatute of 10 GEO. III. for preventing the ſtealing of dogs, it is enacted, that after the 1ſt day of *May*, 1770, if any perſon ſhall ſteal any dog or dogs of any kind or ſort whatſoever, from the owner thereof, or from any perſon entruſted by the owner thereof with ſuch dog or dogs; or ſhall ſell, buy, receive, harbour, detain, or keep any dogs of any kind or ſort whatſoever, knowing the ſame to have been ſtolen as aforeſaid, every ſuch perſon being convicted thereof upon the oath of one credible witneſs, before two juſtices of the peace, ſhall for the firſt offence forfeit and pay any ſum, not exceeding 30*l.* nor leſs than 20*l.* and the charges of conviction. And in caſe ſuch penalty ſhall not be forthwith paid, the offender to be committed to gaol for any time not exceeding twelve months, nor leſs than ſix, or until the penalty and charges are paid. Any perſon guilty of a ſubſequent offence, to forfeit and pay any ſum not exceeding 50*l.* nor leſs than 30*l.* together with the charges, which penalties to be paid, one moiety thereof to the informer, and the other to the poor of the pariſh. On non-payment the offender to be impriſoned for any time not exceeding 18 months nor leſs than 12, or until the penalty and charges ſhall be paid, and be publicly whipped.

Juſtices to grant warrants to ſearch for dogs ſtolen. And in caſe any ſuch dog or dogs, or their ſkins, ſhall upon ſuch ſearch be found, to take and reſtore every ſuch dog or ſkin to the owner, and the perſons in whoſe cuſtody any ſuch dog or ſkin ſhall be found, are liable to the like penalties and puniſhments. Perſons aggrieved may appeal to the quarter-ſeſſions, and the determination there to be final.

A ſhort Sketch of the Laws, as they now ſtand, relating to Hares, Partridges, Pheaſants, and other Game.

The penalty for killing in the night a hare, partridge or pheaſant, qualified or unqualified, is 5*l.*

Any unqualified perſon expoſing to ſale a hare, partridge, pheaſant, or other game, is liable to a penalty of 5*l.*

If any hare, pheaſant, partridge, or other game, be found in the ſhop, houſe, or poſſeſſion of any poulterer, ſaleſman, fiſhmonger, cook, or paſtry-cook, or of any perſon not qualified in his own right to kill game, or entitled thereunto under ſome perſon ſo qualified, it be deemed an expoſing thereof to ſale.

For ſelling a hare, partridge, pheaſant, or other game —qualified or unqualified, 5*l.*

Any unqualified perſon uſing tunnels or other engines, to kill or deſtroy a hare, partridge, pheaſant, or other game, forfeits 5*l.*

Any unqualified perſon keeping and uſing greyhounds, ſetting dogs, lurchers, tunnels, or other engines to kill or deſtroy hares, partridges, pheaſants, or other game, is liable to 5*l.* penalty—The 5*l.* penalty is either for keeping or uſing.

For killing a partridge, between the 12th of *February* and 14th of *September*—qualified or unqualified, 5*l.*

For uſing greyhounds, lurchers, or ſetting dogs, to kill a hare, partridge, or pheaſant, unqualified, 5*l.*

[Greyhounds, lurchers, and ſetting dogs, are the only dogs for keeping and uſing which the penalty of 5*l.* is levied. But by another ſtatute, a penalty not exceeding 20*s.* may be levied for keeping and uſing the above or any other dogs.]

For killing a pheaſant, between the 1ſt of *February* and 1ſt of *October*—qualified or unqualified, 5*l.*

[The information in the above caſes muſt be laid within ſix calendar months, before a juſtice of the peace, or by action of debt, bill, plaint, or information. The whole penalty to be given to the informer, with double coſts, if brought on in the courts of Weſtminſter.] Half to informer and half to poor.

For tracing in the ſnow, or ſhooting with a gun or long bow, a hare—qualified or unqualified, impriſonment 3 months, or fine 1*l.*

For uſing ſnares to take or kill a hare—qualified or unqualified, impriſonment one month, or fine 10*s.*

[The information in the above caſes muſt be laid before a juſtice of the peace within one year.]

The informer to be entitled to all coſts and charges, and to half the penalty, the other half to be given to the poor of the pariſh.

Any game keeper killing or taking a hare, pheaſant, partridge, or other game, under colour of being for the uſe of the lord of the manor, and afterwards ſelling and diſpoſing thereof without the conſent of the ſaid lord of the manor—upon conviction, on the complaint of ſuch lord, and on the oath of one witneſs, before a juſtice, ſhall be committed to the houſe of correction for three months, and there kept to hard labour.

Any

Any perſon who ſhall deſtroy, ſell, or buy any hare, pheaſant, &c. and ſhall in three months make diſcovery of any higler, chapman, carrier, inn-keeper, ale-houſe-keeper, or victualler, that hath bought or ſold, or offered to buy or ſell, or had in their poſſeſſion, any hare, pheaſant, partridge, &c. ſo as any one ſhall be convicted; ſuch diſcoverer ſhall be diſcharged of the pains and penalties hereby enacted for killing or ſelling ſuch game, and ſhall receive the ſame benefit as any other informer.

Any juſtice of the peace, and lord within his manor, may take away any ſuch hare, pheaſant, partridge, &c. from any higler, chapman, inn-keeper, victualler, or carrier, or any other perſon not qualified, which ſhall be found in his cuſtody or poſſeſſion.

Any perſon that ſhall knowingly and wilfully kill, take or deſtroy, or uſe any gun, dog, ſnare, net, or other engine, with intent to kill, take, or deſtroy, any hare, partridge, or other game, in the night, viz. between the hours of ſeven at night and ſix in the morning, from the 12th of *October* to the 12th of *February*, and between the hours of nine at night and four in the morning, from the 12th of *February* to the 12th of *October*; or in the day time on a *Sunday* or *Chriſtmas-day*; ſhall forfeit for the firſt offence not exceeding 20*l.* nor leſs than 10*l.* For the ſecond offence not exceeding 30*l.* nor leſs than 20*l.* For the third and every other ſubſequent offence 50*l.*

[The information to be laid within one calendar month, before a juſtice of the peace. The informer to be entitled to all coſts and charges, and to half the penalty, the other half to be given to the poor of the pariſh.]

No perſon ſhall ſhoot with any croſs-bow, hand-gun, or demihake, unleſs ſuch perſon is really poſſeſſed of 100*l.* *per annum*, on pain of forfeiting 10*l.*

No perſon, of what eſtate or degree ſoever, ſhall ſhoot with, carry, keep, uſe, or have in his poſſeſſion, any hand-gun, not being in the ſtock and gun of the length of one yard; or any hagbut, or demihake, not being in the ſtock and gun of the length of three quarters of a yard, on pain of forfeiting 10*l.*

Any perſon having 100*l.* per annum as above, may ſeize every ſuch croſs-bow, hand-gun, &c. being ſo deficient in length; but ſhall break and deſtroy them in 20 days after ſuch ſeizure, on pain of forfeiting 2*l.*

No perſon ſhall command his ſervant to ſhoot with any croſs-bow, hand gun, hagbut, or demihake, at any deer, fowl, or other thing, except at a butt or bank of earth, on pain of forfeiting 10*l.*

Perſons qualified to kill game, muſt be in poſſeſſion of lands, tenements, or ſome other eſtate of inheritance, either in right of themſelves or their wives, of the clear yearly value of 100*l.*—or for life, or leaſe of 99 years of 150*l.* per annum, other than the ſon and heir of an eſquire, or perſon of a higher degree, or lord of a manor, or keepers of parks, chaſes, or free warrens.

LORD MANSFIELD'S OPINION.

An unqualified perſon may go out to beat the hedges, buſhes, &c. with a qualified perſon, and to ſee the game purſued or deſtroyed, provided the unqualified perſon has no gun or other engine with him for the deſtruction of the game, without being ſubject to a penalty.

As many ſportſmen may be unacquainted with the nature of the act paſſed in the laſt ſeſſion of parliament, 1796, relating to partridge-ſhooting, we think it neceſſary to ſtate that the time of its commencement is altered from the 1ſt to the 14th day of *September*; as will be ſeen by the following extract from the Act: "From and after the paſſing of this Act, no perſon or perſons ſhall, on any pretence whatſoever, take, kill, deſtroy, carry, ſell, buy, or have in his, her, or their poſſeſſion or uſe, any partridge, between the 12th day of *February* and the 14th day of *September* in any one year:" and if any perſon or perſons ſhall tranſgreſs this act in the caſe aforeſaid, every ſuch perſon ſhall be liable to the ſame penalty as, by the former Act, is laid and impoſed for killing, &c. ſuch partridge between the 12th of *February*, and the 1ſt of *September*.

GAME-COCK. Many gentlemen who follow the diverſion of fighting cocks, by not being well acquainted with the methods concerning breeding them, are prevented from enjoying the moſt deſirable part of the fancy; therefore, the reſult of many years experience upon that ſubject, will be well received by all lovers of the ſport, or any other perſons who have the curioſity to read the following obſervations.

The choice of a cock ſhould be from a ſtrain which has behaved well, that is, from thoſe who have always won the odd battle when equally matched; for it is a general opinion among perſons who are well acquainted with the fancy, that cocks capable of ſo doing are good ones. But this is not always to be depended on for a ſecond battle with the ſame cock; for cocks, that to all appearances won the firſt time they fought very eaſy, yet have been much hurt, and in their ſecond battle, after a few blows, ſtood ſtill and been beat. Neither is this the only thing againſt a cock's winning twice; for after having fought the battle he was matched for, it ſeldom happens but he is neglected; yet an opportunity offering to fight him in the courſe of eight or ten days, he receives a hurry with another cock in the pens, and becauſe his goodneſs makes him ſpar well for ſome two or three minutes, it is concluded he is fit to fight: and if he has to combat with a cock that has never fought, and yet is well to fight, it is almoſt certain he will be beat, though perhaps a much better cock in blood.

It ſometimes happens during the courſe of a battle, particularly if one of the cocks is blinded, that the ſetter-to gets a blow in the hand, which will prevent him uſing it for three or four days; judge then what a ſituation one of theſe poor animals muſt be in from the number of wounds he muſt conſequently receive during a ſmart battle of fifteen or twenty minutes; yet if a good cock in blood, he will appear in two or three weeks time as if he had not been hurt: but never truſt to appearances of this ſort, for be aſſured, after a cock has fought a hard battle, he will not be fit to fight again the ſame ſeaſon; and very often, after you have been at the expence and trouble of keeping him at his walk another year,

year, he will only loſe your money, by reaſon of his having received ſome hurt in his firſt battle, which he has never been able to get the better of, and which the beſt judges could not diſcover; nor is he fit after to breed from; but there are ſome gentlemen who have been fortunate enough to have bred good chickens from a cock that has fought ſeveral times; alſo thoſe who have had cocks that have won ſeveral battles. It ſometimes happens that cocks that have fought ſeveral times get good chickens, but then they have an elegance of make, and a remarkable conſtitution to recommend them; and indeed if they had not been poſſeſſed of ſomething very rare to be found in the common run of cocks, a perſon of judgment would never have bred from them. As to cocks winning ſeveral battles, it ſometimes happens that a cock will win three or four ſeaſons running in regular matches, or win a welch main, but then he muſt be a very ſevere ſtriker; and for another's winning ſeven or eight battles in a ſeaſon, it ought to be conſidered what he has had to fight againſt, a parcel of half-bred, ill-walked, dunghill things; or elſe ſome young fanciers have been prevailed upon to fight chickens againſt him, or cocks much under his weight; when if he had had a freſh cock come againſt him only the ſecond time he fought, of equal weight and goodneſs, and as well to fight, it is very great odds but he muſt have been beat.

The properties a cock ought to be poſſeſſed of that is bred from, are theſe, firſt, you ſhould be well acquainted with the ſtock he ſprung from; the next object you muſt pay an attention to, is to be aſſured he is perfectly ſound, which to find out is rather difficult; but the beſt method is ſtrictly to obſerve his manner of feeding, for if he will eat corn enough to make his crop very hard, and digeſt it quickly, it is a ſure ſign his conſtitution is good; as it is that he is rotten, if he eats but little, and has a bad digeſtion.

There are alſo other methods to be obſerved on this occaſion, ſuch as running him down in a field, or to ſpar him with another cock, when if he turns black in the face at either of theſe exerciſes, you may be certain he is not ſound; but to make ſure try theſe, and every other method you can deviſe; for it is impoſſible to be too particular in this article.

As to the exterior qualifications, his head ſhould be thin and long, or if ſhort, very taper, with a large full eye, his beak crooked and ſtout, his neck thick and long (for a cock with a long neck has a great advantage in his battle, particularly if his antagoniſt is one of thoſe kind of cocks that will fight at no other place but the head); his body ſhort and compact, with a round breaſt (as a ſharp breaſted cock carries a great deal of uſeleſs weight about him, and never has a fine fore hand); his thighs firm and thick, and placed well up to the ſhoulder (for when a cock's thighs hang dangling behind him, be aſſured he never can maintain a long battle); his legs long and thick, and if they correſpond with the colour of his beak I think it is a perfection; and his feet ſhould be broad and thin, with very long claws.

With regard to his carriage, it ſhould be upright, but not ſtifly ſo; his walk ſhould be ſtately, with his wings in ſome meaſure extended, and not plod along as ſome cocks do, with their wings upon their backs like geeſe.

As to the colour he is of, it is immaterial, for there are good cocks of all colours; but he ſhould be thin of feathers, and they ſhort and very hard, which is another proof of his being healthy, as on the contrary, if he has many, and thoſe ſoft and long, it favours much of his having a bad conſtitution.

A cock poſſeſſed of all theſe qualifications, ſuppoſing him in a condition to fight, ought not to weigh more than four pounds eight or ten ounces; for if you breed from a cock that weighs five pounds and upwards, and your hens are of a good ſize, which they ought to be, the cocks they produce, if well walked, will be too large to fight within the articles, and this will be a great loſs to the breeder; neither ſhould they weigh much leſs than the weight mentioned, for if he is not greatly ſuperior in ſize to the hens you put him with, the produce will not have that ſhare of bone they ſhould have, and conſequently if they fight againſt well bred cocks they will loſe a great deal in match, which every one that follows this fancy knows the reſult of, or at leaſt ſhould do.

Having mentioned the requiſites for the choice of a cock, be certain the hens you tend him to breed with are ſound; which to find out, uſe the ſame methods mentioned to be made uſe of with a cock; alſo be aſſured there has not been the leaſt taint in their race for many generations paſt. As to other qualifications with regard to feather, make and ſhape, they ſhould exactly correſpond with the cock's, except their bodies, which ſhould be roomy behind for the production of large eggs.

The next thing to be conſidered is the place for you to breed at; this ſhould at leaſt be near half a mile from any houſe where fowls are kept, for fear of having your hens trod by other cocks, which is often the caſe if they ramble within ſight of each other: it ſhould alſo be a conſiderable diſtance from any wood or coppice; that is, it ought to be ſo far, that there would not be a probability of their ſtraying near it, for the vermin that infeſt thoſe places will deſtroy your chickens; and ſometimes it affords an opportunity for a fox to run away with your cock, or one of your hens, during the daytime.

If your ſituation is on a dry gravelly ſoil, it is the better, and as you muſt by no means breed at a place where there is not a conſtant ſpring of clear water, contrive if you can to let it run off in a ſmall ſtream by the houſe, if ever ſo inconſiderable; by which means your fowls will always have clean water without any trouble; but if you are obliged to draw the water out of your well with a bucket, be attentive to give it them freſh very often.

It is the prevailing opinion among many perſons, who are fanciers, that a farm houſe is a good place to breed game chickens, becauſe of the many out-houſes and ſtables for them to ſhelter in during bad weather, and thinking as they are threſhing the greateſt part of the year, there will be always food for them. It is true, dry places, where they may amuſe themſelves when

when it rains, are very convenient, but buying them corn ſhould be of no moment to a gentleman who wiſhes to ſee his cocks cut a figure in the match.

As it is probable the reader would wiſh to know objections againſt breeding at a farm-houſe; they are becauſe farmers in general keep a number of hogs, geeſe, and ducks, which foul all the water about the place, and unleſs chickens have clean water, they will never make thorough ſound cocks. Neither is it a good walk for a cock, on account of the many hens that are uſually kept at theſe places; for it muſt be underſtood, by his having ſo great a variety he will debilitate himſelf; and to clear up this point, is only determining whether a debilitated perſon is able to go through the ſame exerciſes as one who has never entered into any debaucheries. Alſo concerning the water, it is abſolutely neceſſary that cocks and hens ſhould have clean water, as well as chickens, if you mean to keep them ſound. But to finiſh the deſcription of the ſituation you ſhould chooſe to breed at, let the place where they are to rooſt in be dry, and free from any offenſive ſmells; as to the ſize of it, it is not very material, only do not let it be too ſmall, nor the rooſting perch too thick for them to gripe, nor higher than they can aſcend and deſcend with eaſe; which will prevent them from having ſwelled feet, a defect that ſhould be carefully guarded againſt, it being looked upon ſo detrimental, that feeders have refuſed to accept them, when they have been perfect in every other reſpect; which conſequently muſt be a great loſs to thoſe who only breed cocks to ſend.

In the beginning of *February* put your cock and hens together, and not before, taking care that your hens have not been with any cock ſince they laid their laſt clutch of eggs: alſo regulate the number you put down according to the quantity of chickens you want to breed, but never put more than four to one cock, and let them be ſiſters, for by putting different ſorts together, you never can breed with any certainty: likewiſe, it is neceſſary you ſhould pay an attention to how they agree, for if the cock takes a diſlike to any of the hens (as is ſometimes the caſe) take her up, for you had better loſe breeding with her a ſeaſon, than to have chickens when there is the leaſt probability of their turning out badly.

Before your hens begin to lay, provide ſeparate neſts for them, if there is only one, and as they generally want to lay about the ſame time in the day, it will occaſion them to drop their eggs in improper places, and ſometimes to quarrel: likewiſe let them be as far aſunder as the breeding place will admit of.

The firſt egg they lay, as it generally runs a great deal ſmaller than the reſt of the clutch, you need not ſave, but let it be marked and left for a neſt egg; this done, take all the others out of the neſt the ſame day they are laid, and put them in a box with bran, taking care they are not thrown about nor changed; for ſome perſons who breed cocks think it no harm to get poſſeſſion of another's ſtrain (no matter by what means) if they believe they are better than their own; but to be certain if this happens, write your name upon every egg you mean to ſet, directly as you take it out of the neſt, which though your eggs may be ſtolen, will prevent your having others ſubſtituted.

When your hens begin to grow broody; do not ſave any more of their eggs, but leave them in the neſt, as it will entice them to ſit the ſooner; and the reaſon for your acting in this manner, is, that after they ſhew a deſire of wanting to ſit, they are never in perfect health, which may be perceived by their countenance turning white, the ſhrivelling of their combs, and by their ſcreaming when the cock comes near them; nor will they ever permit him to tread them but when he does it by ſurprize; therefore, it is not likely the chickens thoſe eggs produce, could poſſeſs the ſpirit of chickens produced from eggs layed by the hens when they are in full health; and it is really an opinion, this is the reaſon why two ſorts of chickens (ſome very good ones, and others but indifferent) have been hatched at the ſame time from the produce of one cock and hen; and if it has happened that the eggs laid while ſhe was in health have been deſtroyed during the time of ſitting, and thoſe laid by her after ſhe began to grow broody preſerved, the hen or cock, or perhaps both, have had their necks broke for breeding bad chickens, when at the ſame time, it has not been their demerit, but the perſon whoſe care they were entruſted to.

Having made theſe remarks with regard to the eggs the moſt proper to ſit on, it is probable you will want to have two clutches of chickens from each of your hens in a proper ſeaſon; to effect which do not let them ſit upon the firſt clutch of eggs they lay, but provide hens for that purpoſe, whether dunghill or game is not very material, but the former is to be preferred, as by their being leſs apt to quarrel, the chickens will not run ſo much danger of being trod to death; but make yourſelf thoroughly aſſured, they have not got that fatal diſtemper called the roope.

When you ſet them, let their neſts be made in large earthen pans, at leaſt a foot and a half from the ground, with clean ſtraw rubbed ſoft, which will prevent their being annoyed by vermin, for ſome hens have been actually killed by ſwarms of ſmall inſects that have found means to get at them when they have been ſet in old boxes or tubs; which accidents pans will entirely prevent. As to the number of eggs you put under each hen, they ought not to exceed twelve; for a hen ſeldom hatches more than that number of chickens if ſhe ſits upon ſeventeen, by her not being able to give them all the proper degree of heat they require; and very often by having too many you ſpoil them all: neither is ſetting an odd number of any conſequence, ſuch ſuperſtitious notions having been long aboliſhed.

Do not ſet your ſtrange hens where the others can get at them, as their wanting to ſit would occaſion the eggs to be broke; and if they did not want to ſit, they would quarrel, which would be attended with the ſame loſs. Let plenty of victuals and water be always near the hens that are ſitting; and if the place where they ſit is floored, provide a quantity of gravel, by which means they will be able to eat, drink, and trim themſelves at their pleaſure.

As you will take the eggs from any one of your breeding

ing hens that want to ſit, you muſt at the ſame time confine her, or elſe ſhe will become very troubleſome, by getting into one of the other hen's neſts and ſo prevent her from coming to lay: and as this in all probability may occaſion them to quarrel, you ſhould take great care to prevent it; for very often when they begin fighting, they never run peaceably together afterwards. Beſides, there are other ill conſequences attend their quarrelling, for if the two hens that have quarrelled happened to be miſtreſſes over the others, and get the leaſt diſfigured, they will be attacked by them, and if they are not parted very ſoon, it will hinder them from laying any more that ſeaſon, and ſometimes they entirely ſpoil one another. To prevent theſe diſagreeable circumſtances, when any of them want to ſit, and it is not agreeable to you ſhe ſhould, keep her under a crate cloſe to the ſpot where you always feed your fowls, until ſuch time as her heat for ſitting is gone off, which will not hurt her, if ſhe has a dry place to ſtand in when it rains, which you may procure her, by putting ſomething over that end of the crate where ſhe rooſts; for were you to ſeparate them in ſuch a manner as they could not ſee each other, when you put them together again it would occaſion a quarrel.

Suppoſe all your hens have laid their firſt clutch of eggs, and gone off wanting to ſit, when they begin to lay their ſecond clutch, juſt proceed in the ſame manner as you did with the firſt, only with this difference, of letting them ſit on their own eggs: for by no means let them lay a third clutch before you permit them to ſit, as they will be weakened by ſuch a proceeding very much: neither will the chickens be ſo good; for it muſt be underſtood you made a treſpaſs upon nature in not permitting them to ſit the firſt time they wanted, and not only that, but the ſeaſon would get too far advanced; it being the prevailing opinion of all good judges that chickens bred to fight ſhould be hatched in the latter end of *March*, or in the months of *April* and *May*. And indeed experience will ſhew the neceſſity there is of abiding by this obſervation; for if chickens are hatched in *February*, or the beginning of *March*, without the ſeaſon is remarkably mild, it is a great chance but half of them die: beſides the trouble you would be at in keeping them in the houſe; thoſe that do live, thrive ſo ſlowly by reaſon of their being cramped with the cold when young, that the other chickens hatched in *April* or *May*, by never having any illneſs, will be much finer in every reſpect before the end of *July*; and as it is not good policy to fight a match of chickens, there is no occaſion for them to be hatched ſo early, being equally as forward to fight as cocks bred in *April* or *May*. Nor can any perſon, who is not well acquainted with breeding, conceive the amazing difference there will be between a clutch of chickens hatched in *April* or *May*, and one hatched in *July* or *Auguſt* although from the ſame cock and hen; for as thoſe bred in the ſpring will run cocks (to make uſe of ſome phraſes made by ſportſmen) high upon leg, light fleſhed, and large boned; when thoſe bred in the ſummer will be quite the reverſe, and conſequently will have to fight (if his antagoniſt was bred in a proper ſeaſon) a much larger cock, though no heavier than himſelf.

As one-and-twenty days is the time allotted for a hen to hatch her chickens in, if your eggs are ſet as ſoon as you have a ſufficient number laid, they will hatch the twentieth day, and when the weather has been remarkably warm they will begin hatching the nineteenth. Theſe remarks you ſhould be attentive to, and take the chickens from her as they hatch, for if you do not, and they ſhould not hatch nearly together, ſhe will leave off ſitting ſo cloſe as ſhe ſhould do, after two or three are out of their ſhell, and conſequently, if ſhe does, the reſt muſt periſh. The chickens that are taken from the hen, while the reſt are hatching, muſt be kept warm, which you may do, by putting them in a neſt made of wool, and covered with flannel, taking care at the ſame time that they are put in a place where the hen cannot hear them, for if ſhe does, ſhe will leave off ſitting immediately, and fly to the place where they are.

If you have four hens hatch chickens in the courſe of three or four days, and each hen upon an average has not more than ten, take the chickens from one, and divide them amongſt the other three, which you may do in an evening, after they have been ſometime at rooſt; and the hens they are put to, will nurſe them the morning following, in the ſame manner as thoſe they hatched themſelves; but ſhould they not have above eight each, you may let them all be brought up by two hens, which will ſave you the expence and trouble of keeping four, as two will anſwer the ſame purpoſe; beſides, your chickens will not have ſo many enemies.

If it is dry weather and the ſun ſhines, you may put your chickens out of doors the next day after they are hatched, placing your hens under crates, to prevent their rambling too far; but if the weather is cold and the ground wet, keep them in a room, and confine the hens in the ſame manner ſuppoſing they were out, which will occaſion them to hover the chickens much oftener than if they had their liberty; but be ſure there is ſpace enough for the chickens to get into the crates, becauſe if they are obliged to ſqueeze in, it will make them grow long bodied, as will their often going between garden rails, which they will do if there are any near, and they cannot fly over.

Many perſons declare, who could have had no experience in breeding fowls, that they did not think it neceſſary that a hen ſhould be confined while her chickens are young, and had juſt ſenſe enough to ſay, that nature never deſigned it; if a hen ſhould lay a clutch of eggs ſecretly in *January*, as it is not uncommon for young hens to lay in that month and ſit upon them, conſequently, if there are any chickens hatched, it muſt be in *February*, when if ſhe is not taken in doors, but left to range where ſhe pleaſes, the cold northerly winds and wet weather, which are uſual at that ſeaſon of the year, will deſtroy all of them.

Breeders differ very much with reſpect to the food that is given chickens for the firſt ten or twelve days after they are hatched; they grow beſt when fed with bread and egg, mixed in the ſame manner as for young

canary birds; and if it happens to be wet weather, that you are obliged to keep them in a room, give them once a day bones of raw mutton or beef to pick, for as they are deprived, by being confined, of the inſects and worms they are always picking up when ranging about in the fields, it is neceſſary they ſhould have ſome meat, and when given them in this manner, it is better than when it is cut for them, as it not only helps to digeſt their own food quick, but affords them exerciſe and amuſement.

It is requiſite you ſhould pay great attention to changing their water very often, for as it is given them in very ſhallow veſſels they ſoon make it dirty, by frequently running through it, whether in a room or out of doors: beſides when the hen is out, as ſhe ſhould always be placed where the ſun ſhines, the water gets warm by there only being ſuch a ſmall quantity, which is very diſagreeable to them, ſo much ſo, that they have refuſed drinking it; when the inſtant you have given them freſh water, they have drank till they have been ſick, which ought to be prevented.

When your chickens are a fortnight old, begin feeding them on barley, and let your hens have their liberty; but if you ſhould not have the convenience of a running water, take care to place the veſſels from which they are to drink on the ſhady ſide of the houſe, and the oftener you change their water the better, likewiſe feed your chickens on a place where there is gravel, which may be effected by having three or four cart loads of that ſoil thrown up in the ſame manner as a bank which ſeparates two fields, and at feeding time ſcatter their barley on both ſides of it, which in ſome meaſure will prevent your hens from beating each other's chickens, likewiſe the early clutches from worrying the latter ones. It will alſo be of great ſervice towards keeping them ſound, for as they cannot help eating, in wet weather, a quantity of whatever ſoil their corn is ſcattered upon, you may be aſſured gravel is the wholeſomeſt. Be ſure alſo that they do not drink any ſoap ſuds, or get to any filthy places; for if they do it engenders diſtempers in them which very often turn to that fatal one the roope, a diſeaſe for which there are many remedies, but never any ſo effectual as breaking their necks; and which method every perſon ſhould take, as ſoon as they are certain any one has the diſorder. Some perſons think fowls have the roope, when they have only a matter reſembling water, running from their noſtrils (which is occaſioned by a cold); and though this for certain is the firſt ſtage of that diſtemper, yet if you but change their walk, and take care of them, they will recover without being ſo much hurt as to prevent their being bred from. Fowls often have not had their conſtitution hurt, although their heads have been ſwelled by a cold, that cores have been cut out from under their eyes; for this has been a ſudden attack, and as ſudden a recovery; but reſt yourſelf aſſured, if they do not loſe their running upon changing their walk, and it becomes thick and ſtinks, they have got the roope.

The proper times to feed your chickens, are in the morning when you let them out; at noon, and about an hour before you let them go to rooſt; and do not give them more at once than they can eat, that is, do not let there be victuals always upon the gravel, for if you do, they will not take that exerciſe which is neceſſary they ſhould, no more than they will if they are kept too long without feeding; and to explain the neceſſity there is for acting in this manner, is only to figure to yourſelf when you have been obliged to wait an hour or two longer for your dinner than uſual, how incapable you have found yourſelf during that time to undertake any thing ever ſo trifling; as on the other hand, when you have been at a table where a great number of delicacies have induced you to eat more than nature required, you muſt have found yourſelf equally incapable of doing any one thing except to ſleep.

If your breeding hens have all got chickens, as it is probable they may by ſitting on their ſecond clutches of eggs, take up your cock, and put him to another walk; for by the hens being engaged, and not accompanying him, he will get vicious and moroſe, and perhaps beat the chickens, who by being young and unable to bear his blows will pine away and die; beſides, by his being ſent away, the hens will take care of them much longer. As ſoon as you can well diſtinguiſh the different ſpecies between the chickens, break the necks of all the pullets, except you mean to ſave any to breed from; for as you muſt break their necks when they are three or four months old, the trouble you will be at in keeping them ſo long, and to feed them as you do the reſt, will be more than they are worth for the table; beſides, as you bred them to have ſo much bone, the expence you have been at for barley will buy chickens that will eat much better. But ſuppoſing your ſituation in life is ſuch that the expence is not an object worth your notice, it would be diminiſhing their number which is very requiſite as it occaſions them to thrive the faſter. In ſhort, it would in all probability prevent your giving any away; for was you to be viſited by any of your friends, their ſeeing ſo many pullets, might induce them to ſolicit one, and if they are perſons you would wiſh to oblige, you cannot deny their requeſt; the conſequence of which will be, if ever any of theſe gentlemen ſhould take part in a match againſt you, your cocks will have to fight againſt their own relations; which gentlemen who follow this diverſion ſhould live with their friends as if they would one time or another become their enemies; and although this maxim may ſeem rather ſevere, yet was it adopted on many other occaſions, it would be found a very neceſſary one.

When your chickens want to go to rooſt, let the perches you provide for them be round and covered with woollen cloth, which will prevent their growing crooked breaſted, neither ſhould it be thicker than they can gripe with eaſe, as that would occaſion them to grow duck footed. This laſt article, when it happens, is a great detriment to them, by reaſon of their not being able to ſtand ſo firm in their battle as they otherwiſe would do, were their claws in a proper direction. The perches likewiſe ſhould be placed no higher than they can aſcend with eaſe, moving them as they grow more able to fly, but never place them too high (that is, not higher than four or five feet till they are three months old; for fear it ſhould occaſion them to have ſwelled feet; and if the perches are not taken down the hens

uſed

uſed to rooſt on, they will rooſt there again before the chickens are able to follow them, which will render the chickens uneaſy, and as they will attempt it every time they go to rooſt, till they can accompliſh their views, their wings or claws may be broke, which would entirely ſpoil them.

It is probable, you will be diſagreeably perplexed on account of their fighting for maſtery, particularly as you have ſo many, for very often they fight until they tear the ſkin from one another's heads half way down their necks, and when this happens, ſportſmen call them peeled pated, by reaſon that the feathers never grow afterwards where the ſkin has been broke; and this is ſo great a defect, that the oppoſite party may refuſe to let them be weighed, alleging they have a great advantage over a cock with a fair hackle; and if they ſhould act in this manner, after you have been at the trouble and expence of bringing them up to be cocks (without you chooſe to ſell them) you will be obliged to break their necks. There are alſo other ill conſequences, if they are permitted to fight a long time, ſuch as their getting ſeem eyed, cankered mouths; and to be explicit, ſometimes they make one another in ſuch a condition as obliges you to kill them directly.

Now, to prevent their fighting from being attended with ſuch diſagreeable conſequences, after they have begun, divide them into as many parties as you can find ſeparate apartments, leaving the ſtrongeſt upon the ground, and when theſe have fully eſtabliſhed their authority over each other (which you make them do in the courſe of two days, by holding which you find the weakeſt in your hand, and buffeting him with your handkerchief while the other ſtrikes him, and if this wont do, confine him without victuals for a few hours until he is cold, when by his being ſtiff and ſore, and the other freſh, after a blow or two he will not attack him again) you may put down the ſtrongeſt from one of the parties that are ſhut up, who by being kept ſhort of food, will ſubmit directly to run under all thoſe that are down; and when they are ſo far reconciled as to permit him to run amongſt them, put down the ſtrongeſt from another party, which will ſubmit in the ſame manner, and by purſuing this method, in the courſe of a few days you will be able to get them all down. When once ſettled, they will go very peaceably together, except by accident one of them ſhould get diſfigured, which if ſuch a thing ſhould happen, and they do not ſeem to be perfectly reconciled, ſend him to another walk for fear of a general quarrel.

Do not permit the hens to run longer with the chickens, than while they remain miſtreſſes over them, but ſend them, and the pullets you have ſaved to another walk; as it will be a ſeaſon of the year your brood cock can be of no ſervice, by putting him down with the chickens, he will be as good to them as a bell-weather to a flock of ſheep; beſides, you will ſave a walk, and in this manner they will run peaceably together (if you prevent any hens from coming near them) until you want the walk for breeding at again. Be ſure you get good walks for thoſe to be made cocks of, but by no means put them down at farm houſes, nor at any place where there is the leaſt probability of their getting to other cocks, for if you do, you may be aſſured of having them ſpoiled. In ſhort, if they are not put to good walks, where they will have plenty of good corn and clean water, you had better break their necks. When you take them to their walks, cut off their combs, *&c.* as cloſe as you can; and by following theſe methods, your brood walk will be clear for you to begin breeding, in a proper time the next ſeaſon.

Having mentioned about moving your hens to another walk, I muſt caution you not to put them down where there are any other hens, not even dunghill ones, for though theſe will not fight long enough to do your hens any injury, they will diſfigure them, which is as bad, becauſe it will ſet them a fighting among themſelves; and if you mean to breed from them the next ſeaſon, it would certainly be better to let them run without a cock; for if they do not lay after they have began to moult, till the clutch of eggs you would wiſh to ſet, you will not be certain to the father of your chickens.

It is requiſite you ſhould know the goodneſs of thoſe already bred before you breed another whole ſeaſon from the ſame cock and hens, but do not cut them out as ſome perſons do, who think if they die game they muſt be good ones; for inſtance, ſome gentlemen's cocks, although very good game, have been beat very eaſy only by half bred cocks, that have been good ſtrikers; whereas if they had made as good uſe of their heels as their antagoniſts, they would eaſily have made them run away. But to be ingenuous, the method you follow to find out their goodneſs, is to chooſe three or four that are ſhorteſt upon leg (becauſe they are fitteſt to fight when ſtags) from thoſe that were hatched in the early part of the ſeaſon, and if you are concerned in a match about *February* or *March*, have them weighed in; but ſuppoſing you ſhould not have any thing to do with a match, lend them where you are ſure they will be well looked after, and by ſtaking the battle money they fight for, you may have them weighed to fight in the main, and as you would not have lent them without its being a creditable match, they conſequently will have to fight againſt good cocks. If you lend four, it is probable three may fight; but there is great odds that one does; and about an equal chance that two do; but let us ſuppoſe three fight, you would be to blame to back them, and indeed it would be judgment for you to lay againſt them to the amount of the battle money, for although your ſtags may be much better than the cocks they fight againſt, yet if it ſhould be a long battle, the cocks muſt win without a mere chance, which good ſportſmen never will truſt to. It is alſo requiſite you ſhould inform yourſelf, if you can, whoſe cocks your ſtags fight againſt, and what character they bear, by ſo doing, you will be a better judge what your ſtags are able to do; likewiſe pay a ſtrict attention to their manner of fighting, for if they keep the battle upon an equal poiſe againſt good cocks, and only ſeem to be beat by age, do not be out of humour, and break the necks of thoſe at their walks, as you may expect great things from them when cocks. Suppoſing they ſhould behave in this manner, breed from the ſame cock and hens again the next ſeaſon, and ſhould they win the odd battle

when cocks, be very careful of your brood cock; for if you are, and by keeping him from the hens during the latter part of the ſeaſon, you may breed from him ſeven or eight years, as a cock that will get good chickens, being a very valuable acquiſition to a breeder.

It is not meant when it is ſaid you may breed from your cock ſo many ſeaſons, that it ſhould always be from the ſame hens, neither is there any occaſion to croſs them every ſeaſon, for if they are good, be contented (and do not let every cock you ſee fight a good battle, entice you to breed from him) for by putting your young hens to your old cock, and a young cock to your old hens, you may keep them in their full vigour at leaſt four years. But never breed from ſtags or pullets without your old ones, as no fowls can ever be poſſeſſed of every neceſſary requiſite to breed from, until they have moulted twice, and when you do croſs your breed, be very careful what ſort you do it with, and the nearer the colour of your own the better, as the produce will run more regular in feather.

Now, permit me to recommend you to tranſact the buſineſs relative to trying your ſtags, without mentioning it even to the perſon that feeds them, which you may effect by cutting off the points of your ſtags heels when you take them from their walks, and ſending them as cocks: but if he ſhould have ſome ſuſpicion they are ſtags (as it is probable he will, if he underſtands his buſineſs) and aſks you, do not inform him, neither tell him they are your own breeding, or that they are all of one ſort; by which means, whether they are good or bad, no perſon will be acquainted with it; for if they ſhould turn out to be of the firſt rate, and you have told the feeder they are your own, and that you have a great many brothers, he tells his helpers, and they their companions, by which means, when your cocks come to fight the next year, you will not be able to get a bet, without laying ſix to four, and ſuppoſing you lay an equal ſum upon every battle, if your cocks do win three out of five in one day's fighting, you will be juſt even in your bets; but if they ſhould loſe three out of five the next day, and you kept laying guineas, you would be ten loſer.

This is ſufficient to ſhow, how neceſſary it is to act with ſecrecy. And to prevent any one from knowing that your cocks are of a ſort, when you mark your chickens, do it two or three different ways, but do not truſt to your memory on this occaſion, let it be ever ſo good, for by having two or three ſorts, each marked in a different manner, may create confuſion, if not inſerted in a book.

It will be requiſite to make ſome neceſſary remarks, to be attended to by any gentleman that is going to fight a match. In fine, when any gentleman has an intention of fighting a match, no matter whether for one day or for a week, before he comes to an agreement, he ſhould viſit all his walks, to ſee if the cocks are ſafe and in a condition fit to be taken up; if they are, the next thing to be conſidered is to ſecure a feeder, one whoſe cocks he has known to fight well during the courſe of many matches, and not by his only having the name of a good feeder, for many are called by that name who have little pretenſions to it; and if they have had the good fortune to win a match or two, it has not been owing ſo much to their good feeding, as to the excellent ſtrings of cocks that have been ſent in by the gentlemen who employed them. Likewiſe to ſecure a good ſetter-to, one whom you have ſeen often and know to be clever, for it is the ſame with this art as that concerning feeding; many pretend to be adepts in it, who do not know when a cock wants reſt, or when he ſhould be made to fight. It muſt be underſtood the winning of a match chiefly depends upon thoſe two perſons, for a good feeder, and a good ſetter-to, win a match with an indifferent ſtring of cocks, againſt a bad feeder and ſetter-to with an excellent one: and as there are generally two who have more merit than any that pretended to this art, the perſon who ſecures them in his intereſt will conſequently have a great advantage over his adverſary.

In the choice of a fighting cock, four things are chiefly to be conſidered, *viz.*

Shape, colour, courage, and a ſharp heel.

1. As to ſhape, you muſt not chuſe one either too large or too ſmall; for the firſt is unwieldy, and not active, the other is weak and tedious in his fighting; and both very difficult to be matched: the middle-ſized cock is therefore moſt proper for your purpoſe, as being ſtrong, nimble, and eaſily matched: his head ought to be ſmall, with a quick large eye, and a ſtrong beak, which (as Mr. MARKHAM obſerves) ſhould be crookt, and big at the ſetting on, in colour ſuitable to the plume of his feathers, whether black, yellow, or reddiſh, &c.

The beam of his leg is to be very ſtrong, and according to his plume, blue, grey, or yellow; his ſpurs rough, long, and ſharp, a little bending, and pointing inward.

2. The colour of a game cock ought to be grey, yellow, or red, with a black breaſt; not but there are many other piles, or birds of different colours very excellent, and may be diſcovered by practice and obſervation, but the three former, by experience, are ever found the beſt. The pied pile may paſs indifferently, but the white and dun are rarely known to be good for any thing.

If your cock's neck be inveſted with a ſcarlet complexion, it is a ſign he is ſtrong, luſty and courageous; but on the contrary, if pale and wan, it denotes him to be faint, and defective in his ſtate of health.

3. You may know his courage by his proud, upright ſtanding, and ſtately tread in walking; and if he crows frequently in the pen it is a demonſtration of ſpirit.

4. His narrow heel, or ſharpneſs of heel, is known no otherwiſe than by obſervation in fighting; and that is, when upon every riſing he ſo hits, that he draws blood from his adverſary, gilding his ſpurs continually, and at every blow threatening him with immediate death.

Here note, it is the opinion of the moſt ſkilful cock-maſters, that a ſharp-heeled cock, though he be ſomewhat falſe, is better than a true cock with a dull heel: the reaſon is this, the one fights long, but ſeldom wounds, while

while the other carries a heel ſo fatal, that every moment produces an expectation of the end of the battle; and though he be not ſo hardy as to endure the utmoſt hewing, ſo commonly there is little occaſion for it, he being a quick diſpatcher of his buſineſs.

Now ſhould your cock prove both hardy and narrow heeled, he is then the beſt bird you can make choice of.

To prepare a cock to fight, firſt with a pair of fine ſhears cut all his mane cloſe off to his neck, from the head to the ſetting on of the ſhoulders.

2. Clip off all the feathers from the tail, cloſe to his rump; the redder it appears, the better is the cock in condition.

3. Spread his wings by the length of the firſt riſing feather, and clip the reſt ſlopewiſe, with ſharp points, that in his riſing he may therewith endanger an eye of his adverſary.

4. Scrape ſmooth, and ſharpen his ſpurs with a penknife.

5. And laſtly, ſee that there be no feathers on the crown of his head for his opponent to take hold of them, moiſten his head all over with your ſpittle, and turn him into the pit to try his fortune. *For other particulars, ſee* MATCHING OF COCKS.

GAME-HEN ſhould be rightly plumed; as, black, brown, ſpeckled grey, griſſel, or yellowiſh; theſe being the moſt proper colours for ſuch a hen of the game: if ſhe be tufted on the crown, it is ſo much the better, for that denotes courage and reſolution, and if ſhe have the addition of weapons, they conduce very much to her excellency; her body ſhould be big and well poked behind, for the production of large eggs: but it is adviſeable to obſerve how ſhe behaves herſelf to her chickens, whether friendly or frowardly: and take eſpecial notice of her carriage amongſt other hens; if ſhe receive abuſes from them without revenge, or ſhew any token of cowardice, value her not, for you may depend upon it her chickens will be good for nothing.

GAME-KEEPERS, are thoſe who have the care of keeping and preſerving the game, and are appointed to that office by lords of manors, &c. who not being under the degree of eſquire, may by a writing, under their hands and ſeals, authoriſe one or more game-keepers, who may ſeize guns, dogs, or nets uſed by unqualified perſons, for deſtroying the game. Game keepers are alſo to be perſons either qualified by law to kill the game, or to be truely and properly the ſervants of the lords or ladies of manors appointing them; and no game-keepers can qualify any perſon to ſuch an end, or to keep dogs, *&c.* as may be ſeen by the ſeveral game acts. *See* GAME LAWS.

The perſons qualified to keep guns, dogs, *&c.* are thoſe who have a free warren, 100*l.* a year, by inheritance or for life, or a leaſe for 99 years of 150*l. per ann.* alſo the eldeſt ſons of eſquires, *&c.* A lord of a manor may appoint a game-keeper within his manor and royalty to kill hares, pheaſants, partridges, &c. for his own uſe, the name of whom is to be entered with the clerk of the peace of the county; and if any other game-keeper, or one illegally authoriſed, under colour of his authority kills game, and afterwards ſells it, without the conſent of the perſon that empowers him, he is on conviction to ſuffer corporal puniſhment.

GANACHES (ſo called in *French*) in farriery, are the two bones on each ſide of the hinder part of the head, oppoſite to the neck, or onſet of the head, which form the lower jaw and give it motion.

It is in this place that the glands or kernels of the ſtrangles and the glanders are placed.

GARGET, IN THE HEAD OF CATTLE; is a ſwelling and inflammation of the head, affecting in particular the eyes and lips, and in the end inflaming alſo the gums and tongue.

The creature muſt be blooded every day till the inflammation is ſubſided. Immediately after the firſt bleeding give two ounces and a half of Epſom ſalts, diſſolved in a pint of warm ale; after which, night and morning, let him have the following drench:

Take half a pint of warm ale, a quarter of a pint of juice of plantane, two ſcruples of ſalt prunella, and a quarter of an ounce of Venice-treacle. Mix all theſe together, and give it in one doſe. Theſe methods will ſeldom fail of producing a ſpeedy cure; but the beaſt muſt be kept clean, dry, and quiet. Or,

Firſt let them blood in the neck-vein, both ſick and ſound, and give unto every beaſt to drink a pint of old urine with a good quantity of hen's dung laid in ſteep eight or ten hours; grind for each beaſt a handful of rue, and put to the hen's dung and urine when it is ſtrained, and give it to the beaſts, ſick and well, but more to the ſick than to the ſound, as it will cure the ſick, and preſerve the ſound.

And to keep them ſound, if the ſeaſon be dangerous, you muſt take thyme, and lay it to ſteep in white-wine vinegar and the beaſt's own water, with a handful of ſalt blended with the vinegar; then rub their mouth and tongue very well, and put the reſt down the beaſt's throat; it will keep their ſtomach, and preſerve their health; but bleed both at ſpring and fall, giving them rue, as aforeſaid. Or,

Look into their mouths for bliſters upon their tongues; and if there are any you muſt break them; but if the tongue is ſwelled, you muſt pull it forth, and look under it; if there be no bliſters, then you muſt take your knife and ſlit underneath the tongue an inch long, to let out the poiſon, and waſh it with vinegar for the preſent, and within an hour, give three penny worth of powder of fenu-greek, turmeric, long-pepper, liquorice-powder, and anniſeeds, in a quart of ſtrong ale or beer lukewarm. But to prevent this, bleed them well ſpring and fall; and, when you do ſo, give to every beaſt ſome rue in a pint of ale or beer, though they be never ſo well, milk-warm, and they will do well.

Caſt him on ſome ſtraw, and then take forth his tongue, and with the point of a knife ſlit along the middle vein under, an inch right from the root of the tongue, and there will come forth black blood and water, which proceeds from the gall; then rub the place with ſalt and vinegar, and he will recover and do well.

The

The garget in ſome cattle proceeds from a bruiſe or puſh.

Cut a hole where the bruiſe is, and make it hollow to the bottom thereof; ſome cut and raſe the ſkin as far as the bruiſe goeth, and then make, and have ready, of beaten garlic and the tops of ſharp nettles, with ſome ruſty bacon on the outſide, beat all well together, and then put it into the hole. Then bathe it twice a day as followeth; take the grounds of ale or beer, and the ſoot of a chimney, of white ſifted aſhes, of black ſoap if you can, mix all theſe together, ſtir it well over the fire, and make it warm; then bathe and waſh the ſore place; uſe this morning and evening till it be thoroughly whole.

GARGET, in the *maw* of *cattle*, is a dangerous diſtemper, which is got when the beaſts covet to eat of crabs or acorns laying under trees, which fruit for the moſt part they ſwallow whole without breaking or chewing, ſo that it lieth whole in the maw, and will not digeſt. You may perceive it by their drooping and heavineſs in their head, and hanging down of their ears; their heart will beat very ſore, and they will be continually ſitting.

Let them blood in the neck-vein, and let them bleed very well; then draw your cord, and take rue, plantane, ſouthernwood, wormwood, ſhepherd's purſe, ſmallage, colewort, if you can conveniently get them, of each half a handful; bruiſe them very ſmall; take a handful of hen's dung, and let it ſteep in a pint of old waſh eight hours, and then ſtrain forth the hen's dung, and put the herbs and waſh together; then put a full quart of ſtrong ale to the herbs and waſh, and ſet them on the fire until one half is boiled away: then ſtrain them over again, and put in an ounce of treacle, one ſpoonful of the juice of garlic, and ſome anniſeeds, together with ſome liquorice powder: blend all together, and give to the beaſt milk warm; or, chop and bruiſe ſmall a good handful of chamomile, and then mix it with wine, and give it him.

GARGLE, in CATTLE. This diſeaſe is an inflammation about the neck, beginning in the outward part, and by degrees affecting inwardly. The firſt ſign of it is a hard hot ſwelling in the dewlap; and this ſpreads afterwards to the breaſt and throat.

Bleed the creature largely: then make an opening in the dewlap where the ſwelling is, and put in as much of the leaves of bear's-foot, pounded to a maſh, as the opening will admit. Sew this in with two or three ſtitches; which will cauſe a running, and put a ſtop to the diſeaſe. When it has run three days, the threads muſt be cut, and the bear's-foot taken out. Then melt ſome black baſilicon and dip in it a pledget of tow; put this into the wound juſt warm, and repeat the dreſſing every day till it is healed. If the diſeaſe be obſtinate, and the ſwelling increaſe, bleed again a day or two after.

GARTH, OR FISH-GARTH. A wear or dam in a river for the catching fiſh.

GARTH-MAN. One who owns an open wear where fiſh are taken.

GASCOIN. The inner thigh of an horſe, which begins at the ſtifle, and reaches to the pla, or bending of the ham.

GAUNT BELLYED, OR LIGHT BELLYED HORSE, is one whoſe belly ſhrinks up towards his flank; whence you may conclude he is extremely coſtive, and annoyed with much unnatural heat, ſo as to be always very waſhy, tender, and unhealthy, after hard labour.

In order to the cure of it, it muſt be obſerved, that all horſes have two ſmall ſtrings, reaching from the cods to the bottom of the belly, one on each ſide; you muſt therefore with your finger breck theſe ſtrings, and then anoint the part every day with freſh butter and the ointment *populneum*, mixed in equal quantities.

GAZE-HOUND. } A dog more beholden to the
GAST-HOUND } ſharpneſs of his ſight, than the noſe or ſmelling, by virtue of which he makes excellent ſport with the fox and hare: he is alſo very exquiſite in his election of one that is not lank or lean, but full, fat, and round; which if it happen to return and mingle with the reſt of the herd, this dog will ſoon ſpy it out, leaving the reſt untouched; and after he hath ſet ſure ſight upon it, he ſeparateth it from the company, and having ſo done, never ceaſeth till he hath worried it to death.

Theſe dogs are much uſed in the north of *England*, and on champagne ground rather than buſhy and wooded places; and they are more uſed by horſemen than footmen.

If it ſo happens at any time that ſuch a dog takes a wrong way, upon the maſter's making ſome uſual ſign and familiar token, he returns forthwith, and takes the right and ready courſe, beginning the chaſe afreſh; ſo that with a clear voice and ſwift foot, he follows the game with as much courage and nimbleneſs as he did at firſt.

GEESE. *See* POULTRY.

GELDING, is a horſe whoſe teſticles are cut out, ſo that he is not fit for a ſtallion.

GELDING A HORSE OR COLT. In the performing of this, three things are to be obſerved: firſt the age, then the ſeaſon of the year, and laſtly the ſtate of the moon.

As to the firſt, if it be a colt, he may be gelded at nine days old, or fifteen, if his ſtones be come down; for the ſooner you geld him, the better for the growth, age, and courage: but a farrier may geld a horſe at any age whatever, if he be careful of the cure.

As to the time of the year, it ſhould be done between *April* and *May*, or in the beginning of *June* at fartheſt; or at the fall of the leaf, which is about the latter end of *September*.

But for the third thing, *viz.* the ſtate of the moon, the fitteſt time is always when the moon is in the wane or decreaſe.

As to the manner of gelding, whether it be a foal, colt, or horſe, after you have caſt him upon ſome ſoft place, take the ſtones between your foremoſt finger and your great finger, then ſlit the cod and preſs the ſtones forth; when that is done, with a pair of ſmall nippers made of ſteel, box, or brazil wood, being very ſmooth, clap the ſtrings of the ſtones between them very

very near, cut to the ſetting on of the ſtones, and preſs them ſo hard, that there may be no flux of blood, then with a thin drawing cauterizing iron, made red hot, ſear away the ſtone; after that take an hard plaiſter, made of roſin, wax, and waſhed turpentine, well diſſolved together, and with your hot iron, melt it upon the head of the ſtrings; that being done, ſear them, and melt more of the ſalve, till ſuch time as you have had a good thickneſs of the ſalve upon the ſtrings.

Laſtly, looſe the nippers, and do ſo to the other ſtone; fill the two ſlits of the cod with white ſalt, anoint all the outſide of the cod with hog's greaſe, and then let the horſe riſe; keeping him in a warm ſtable looſe, that he may walk up and down, for there is nothing better for him than moderate exerciſe.

But if you perceive that he ſwells in the cod and ſheath very much, chaſe him up and down, and make him trot an hour in the day, which will ſoon recover him and make him ſound.

GENNET. A kind of *Spaniſh* horſe; alſo a kind of cat bred in *Spain*, ſomewhat bigger than a weaſel, of a grey or black colour, but the fur of the black is the moſt valuable.

GENTIL. } A ſort of maggot or worm, often
GENTLE. } uſed for a bait to catch fiſh.

You may breed and keep gentles thus: take a piece of beaſt's liver, and with a croſs ſtick, hang it in ſome corner over a pot or barrel, half full of dry clay, and as the gentles grow big they will fall into the barrel and ſcour themſelves, and be always ready for uſe whenſoever you incline to fiſh; and theſe gentles may be thus created till after *Michaelmas*. But if you deſire to keep gentles to fiſh with all the year, then get a dead cat or a kite, and let it be fly-blown, and when the gentles begin to be alive and to ſtir, then bury it and them in ſoft moiſt earth, but as free from froſt as you can, and theſe you may dig up at any time when you intend to uſe them; theſe will laſt till *March*, and about that time turn to be flies.

But if you be too nice to foul your fingers, which good anglers ſeldom are, then take this bait; get a handful of well made malt, and put it into a diſh of water, and then waſh and rub it betwixt your hands till you make it clean, and as free from huſks as you can; then put that water from it, and put a ſmall quantity of freſh water to it, and ſet it in ſomething that is fit for that purpoſe over the fire, where it is not to boil apace, but leiſurely and very ſoftly, until it becomes ſomewhat ſoft, which you may try by feeling it betwixt your finger and thumb; and when it is ſoft, put your water from it, and then take a ſharp knife, and turning the ſprout end of the corn upward, with the point of your knife take the back part of the huſk off from it, and yet leaving a kind of inward huſk on the corn, or elſe it is marred: and then cut off that ſprouted end, that the white may appear, and pull off the huſk on the cloven ſide, and then cutting off a very little of the other end, that ſo your hook may enter; and if your hook be ſmall and good, you will find this to be a very choice bait either for winter or ſummer, you ſometimes caſting a little of it into the place where your float ſwims.

GERFALCON. } A bird of prey, that is of a ſize
GYRFALCON. } between a vulture and a hawk, and of the greateſt ſtrength next to an eagle.

GESSES. The furniture belonging to a hawk. *See* JESSIES.

GIDDINESS, or MADNESS, in ASSES. This ariſeth from heat, cauſed by bad vapours ariſing from ill digeſtion.

Take a handful of the tops of rue and carduus, boil it in a pint of white wine, give it warm, and bleed in the temple-veins, keep him in a warm houſe with a good litter; let his drink be water wherein bran has been boiled.

GIDDINESS, in the head of SHEEP. This is a complaint common among ſheep that are too richly fed. The farmers call it ſturdineſs, and the ſturdy evil.

The cure.

The ſheep muſt be bled three quarters of a pint, then diſſolve an ounce of aſſafœtida in a quart of water, add four ſpoonfuls of juice of garlic, and two ounces of honey; give a quarter of a pint at a time once in three hours, till half is taken; then the reſt at doſes night and morning. Put the ſheep into hilly paſture ground, and they will eſcape a return.

GIGS, otherwiſe called BLADDERS, or FLAPS, are a diſeaſe in the mouth of a horſe; they being ſmall ſwellings or puſtules, with black heads, on the inſides of his lips, under his great jaw teeth, which will be ſometimes as big as a walnut, and ſo painful withal, that he will let his meat fall out of his mouth, or at leaſt keep it in his mouth unchewed.

Theſe gigs proceed from foul feeding, either of graſs or provender; and you may feel them with your finger.

In order for a cure, pull forth the horſe's tongue, and ſlit it with an inciſion knife, and thruſt out the kernels, or corruption; and afterwards waſh the place with vinegar, ſalt, or allum water, and they will do well: but to prevent their coming at all, waſh the parts with wine, beer, or ale.

GIRLE, [among Hunters] a roe-buck of two years old.

GIRTHS OF A SADDLE. The ſtrong canvas ſtraps, which being buckled under a horſe's belly, ſerve to fix the ſaddle. *See* SADDLE.

GIRTH, [with cock-maſters] the compaſs of a cock's body.

GIRTH-WEB. That ſtuff of which the girths of a ſaddle are made.

GLANDERS. Mr. LAWRENCE ſpeaking of the Glanders, ſays, that BLUNDEVIL, and after him MARKHAM, give the following ſhort deſcription of its riſe, progreſs, and completion: "Of cold, firſt "cometh the poſe (that is ſtoppage in the head) and "the cough; then the glanders, and laſt of all, the "mourning of the chine." Of the nature of the diſeaſe they had yet very confuſed and erroneous notions; of courſe their attempts at cure were irrational, and little to the purpoſe. But they by no means deſe.ve

ſerve the ridicule which has been caſt upon them, for the term *mort-de-chine*, or as Blundevil engliſhed it, mourning of the chine; ſince they did but what is very common with our modern farriers, denominate a diſeaſe from one of its prominent ſymptoms. That the waſting of the chine is an almoſt invariable ſymptom of chronic glanders, I have had frequent occaſion to obſerve: and in the laſt of two attempts to cure the diſeaſe, my patient, a ſix year old mare, had a real *tabes dorſales*, as far as that term is ſuppoſed to intend a conſumption, and weakneſs of the loins.

SNAPE was the firſt of the old veterinary writers who really underſtood this diſeaſe, and probably it will not be too much to aſſert, that he has given as juſt and philoſophic, although conciſe, an account of it, as the moſt celebrated of our modern writers: of which any profeſſional man may ſatisfy himſelf, by turning to GIBSON's Firſt Treatiſe, in one volume, where SNAPE is quoted, ſince the work of the latter being ſcarce, may not be eaſily obtained.

BRACKEN was undoubtedly in an error to aſſert, that the glanders was not infectious; the Doctor had ſurely not inveſtigated the nature of the contagion, with his accuſtomed patience and acumen; but his obſervations on the diſeaſe, in his own Treatiſe, and his notes on LA FOSSE, whoſe memoir on the glanders he tranſlated, will be found of great conſequence to thoſe who deſire information on the ſubject.

The *Sieur* LA FOSSE, farrier to the French king, about the year 1749 made various experiments upon glandered horſes, but his chief merit was the invention of the method of trepanning them, in order to throw injections immediately upon the ulcerated parts: a diſcovery of importance, particularly ſince it proved in every inſtance to be unattended with the leaſt harm, or even blemiſh to the horſe. EDWARD SNAPE, formerly farrier to the late king, followed LA FOSSE in this practice.

The laſt practical writer on this ſubject, is ST. BEL, in whoſe work many curious obſervations will be found: theſe remarks are intended for the uſe of ſuch profeſſional gentlemen as may be deſirous of conſulting the beſt authorities, with as little trouble as may be. With reſpect to poſſeſſors of glandered horſes, who may wiſh to make experiment of the poſſibility of cure; they ought to be aſſured, that it is a caſe which demands the ſkill of the moſt able veterinary phyſicians and ſurgeons, and that no ſatisfaction can poſſibly be derived from the random attempts of ignorant pretenders.

The following anatomical facts, or opinions, are extracted from BRACKEN, on LA FOSSE, and from ST. BEL.

LA FOSSE.—"There is no communication between the brain and the noſe in the horſe." This was by way of anſwer to thoſe who held the glanders to be a defluxion from the brain. But his commentator controverts this poſition of LA FOSSE, who is ſuppoſed to mean no more by it, than that the brain is parted from the upper part of the noſe by bones, and that therefore there is no danger in performing the operation of the trepan; there is a communication through the holes of the bone, called *ethmoides*, or *cribiforme*, from its reſemblance to a ſieve. "In proportion as the ſublingual glands, which are two in number, ſituate one on each ſide between the lower jaw, are ſwelled more (that is obſtructed) the noſe would run more; if one only were ſwelled, then the noſtril on the ſame ſide only would run." The ſeat of the glanders is in the *membrana pituitaria*, or lining of the noſtrils; beſt method of cure by injection." Nineteen out of twenty glandered horſes which were killed, had their viſcera ſound, or very little diſtempered." "When the diſcharge is inclinable to a browniſh hue, with blood, &c. the covering of the capillary veſſels (in the lining of the noſtrils) is abraded and worn off by the ſharpneſs of the humour, and blood makes its eſcape at the extremities of the ramifications or branchings of the veins and arteries." "The ſublingual glands, or glands under the tongue, in horſes, do not diſcharge from their canals into the mouth, as in man, but on the contrary, turn backwards, and paſs behind the holes of the noſtrils; theſe glands are anterior to the maxillary glands, which latter ſupply the mouth with all the ſaliva; for this reaſon, in the glanders, we find obſtruction and tumefaction of the former, whilſt the latter glands remain ſound." "From the appearance of health, the durableneſs of ſome glandered horſes, the good and laudable ſtate of the viſcera, the ſwelling and ulcers of the pituitary membrane, and the cornets, (or thin cartilaginous ſubſtances in ſhape of horns, in each noſtril) and the matter which fills the ſinuſes; we may reaſonably conclude, the glanders is a local and inflammatory diſeaſe, and that the ſeat of it is in the pituitary membrane." "A horſe for eighteen months diſcharged a thick white humour in abundance from his noſtrils. At reſt in the ſtable the running ceaſed, and was exchanged for a rattling noiſe in his breathing, which noiſe ceaſed in turn, on the horſe being worked, when the running again ſucceeded: whence inferred the horſe not glandered. Being killed, the pituitary membrane was found perfectly ſound, and all the interior parts of the noſe in a good ſtate, without any unnatural contents in the ſinuſes. The lower viſcera ſound, but a large abſceſs at the entry of the lungs, in the place where the *trachea arteria*, or windpipe, divides itſelf into branches." Horſes cannot cough up corruption from the lungs by the mouth, as mankind do; therefore ſuch matter runs off by the noſtrils. If one noſtril only run, we may be pretty ſure the diſeaſe is not in the lungs, but the head; becauſe the matter that comes up the windpipe from the lungs has an equal chance of entering both noſtrils." "A horſe may live, and do buſineſs a long time, with an abſceſs in the lungs, before the matter, which paſſes up the windpipe, is capable of corrupting the membranes. The rattling noiſe in the noſtrils, occaſioned by the tumid ſtate of the glands, and the prodigious quantity of matter which flows off, diſtinguiſh the preſent diſtemper from the glanders."

ST. BEL.—The glanders, an obſtruction or eroſion of the lymphatic ducts and fluids, in animals which do not cleave the hoof, a diſeaſe hitherto incurable.

"Young horſes moſt liable to the diſeaſe, fat horſes more

more than lean ones, thoſe at reſt more than working ones, leaſt of all thoſe running abroad.

"The peculiar ſymptoms of the diſeaſe are, that the virus in moſt caſes does not produce any ſenſible alteration in the animal œconomy; the horſe has no fever, dullneſs, or diſtaſte to food, but the animal functions are all regular. The obſtruction of the lymphatic glands. The hardneſs and inſenſibility of the glands, in this diſeaſe, juſtifies the ſuppoſition, that the virus contains ſome noxious and active effluvia which condenſe the humours.

"When the diſcharge is only from one noſtril, the gland on that ſide alone is obſtructed. If on compreſſing the glands (or kernels) between the fingers, an elaſtic repulſion is felt from the centre of the gland, and the animal ſhews ſenſibility of pain, the diſeaſe is not the glanders, becauſe in that caſe the glands are hard and quite inſenſible." ST. BEL ought to have made the exception, that a portion of ſenſibility might remain in the glands with the incipient glanders.

I ſhall now give my own ſentiments, reſpecting this diſeaſe, which, during the courſe of about ſeventeen years, I have ſeen in all the various ſhapes and ſymptoms deſcribed by authors, without being altogether an incurious obſerver. Within the period I have had three or four glandered horſes in my poſſeſſion, two of which I purchaſed, chiefly in order to make experiment. The firſt was a cart-horſe, and upon what grounds I have now forgotten, I gave him oak-bark powdered in his corn, for near two months, and a conſiderable quantity of crude mercury; ſome attention was paid to cleanſing his noſtrils, and he was kept to conſtant work. The diſcharge abated by degrees, and at the end of about ſix months was ſcarce viſible; but although improved, he was ſtill very faint, and troubled with a conſumptive cough. I ſold him, and, about two years afterwards, ſaw him again offered for ſale, much in the ſame condition. I bought a mare of Doctor SNAPE, which he ſuppoſed he had cured of the glanders, caught from being improperly treated in the ſtrangles. She had not the ſmalleſt diſcharge, but was always in a weak and feeble ſtate, and died tabid and waſted away, at graſs, in about a twelvemonth. In 1788 I took a well ſhaped mare, very valuable could ſhe have been made ſound, which was affected with what MARKHAM would have ſtyled "a high running glanders." In fact, ſhe diſcharged from both noſtrils a copious gleet of the very worſt colour and ſcent, the kernels under her jaws were hard and inſenſible, her hair came off with the ſlighteſt pull, ſhe had the real hectic purulent fever, accompanied with ſymptomatic "mourning of the chine," or the uſual tabid appearance, more particularly in the loin. Her eyes were watery and gummy, ſometimes her legs ſwelled, ſubject to faint ſweats on the leaſt exerciſe, appetite moderate, dung of a looſe rotten appearance, coat fine, and laid well: I continued her ſtrictly in the courſe recommended by BRACKEN, ſeven weeks, with alternate amendment and relapſe, towards the latter part of the time, with ſome ſmall apparent improvement; but my man getting weary of ſo diſguſting an attendance, and foreſeeing that a cure muſt be at any rate very diſtant, I ſent her to Smithfield and ſold her. I muſt remark here, that relying on the ſingular opinion of BRACKEN, I took no precautions whatever with theſe glandered horſes, except in feeding them at ſome diſtance from the ſound ones. The cart horſe ſtood in the ſame ſtable with five or ſix others, and yet nothing like infection, or any kind of ill conſequence followed, and I have known many ſimilar inſtances.

Much incertitude and variety has ariſen in the definition of the true glanders. The doctrine of thoſe ſkilful noſologiſts, the farriers, is as follows; ſhould a horſe die with a diſcharge from his noſtrils, and they have no other diſeaſe to lay to his charge, they ſay, he died glandered: but ſhould he have the moſt fetid running, with all the other acknowledged ſymptoms of the diſeaſe, and yet recover, they pronounce he was not glandered. It is no doubt a ſafe mode of delivering an opinion. Some of the old writers, give you a receipt "to bring away the glanders," as if the horſe had ſwallowed a peck of nuts, and you wiſhed him to void them. The oſtentatious LA FOSSE, as fond of ſplitting hairs, and of ſublimating diſeaſes into a uſeleſs variety, as our countryman TAYLOR of empiric notoriety, who divided the diſeaſes of the eye into two hundred and forty-five; deſcribes very accurately from the varying colour of the diſcharge, half a dozen different ſpecies of glanders; he might as well have croſs-examined the dejections, in order to eſtabliſh from the various hue, conſiſtence, and ſcent, as many different kinds of *diarrhœa*. I ſubmit to the profeſſion, "whether every diſcharge from the noſtrils of horſe, aſs, or mule, fœtid, and from its acrimony capable of eroſion, ought not to be called glanders?" It would ſave much uſeleſs diſquiſition.

The *Glanders*, or *Contagious Catarrh*, is either chronic, as being the effect of inveterate and accumulated catarrh, or acute, as ariſing immediately from epidemic contagion, or infection from one animal to another; the ſeat of the diſeaſe is in the ſublingual glands, which are tumefied and obſtructed, in the pituitary membrane, or in the lungs. That the diſeaſe is local according to the notion of LA FOSSE, is ſo far true, that the diſcharge always proceeds either from the pituitary membrane, or the lungs, but that the whole maſs of fluids muſt be tainted by the glanderous virus in a confirmed ſtate, I think needs no proof; we are not to wonder at the unwillingneſs of that author, to accede to ſuch a poſition, he had his ſyſtem of locality to ſupport; the vanity of making every conſideration give place to a favourite hypotheſis, is not confined to the Sieur LA FOSSE.

Obſtruction and ſtagnation, whether in the air, or animal fluids, I take to be the ſource of *mephitis*, or contagious virus; circulation, motion, and currency its cure. Stagnation is the nidus (ſo to ſpeak) where are hatched thoſe *miaſmata*, which penetrate, infect, and engender their like, in ſenſible bodies. Strong pungent fœtor, is a diſtinctive characteriſtic of malignancy, and the power of infection. When the diſcharge from the noſtrils is very fœtid, it is a proof that much matter is accumulated, and lodged in the *ſinûs*, or cavities of the ſkull, that the pituitary membrane is ulcerated, and that the diſeaſe will put on its moſt malignant form. If the running be whitiſh, of moderate conſiſtence, and

but little ſmell, rather copious, and from both noſtrils, it in general, I believe, indicates an ulcer in the lungs, that no lodgments of matter are yet formed in the cavities of the ſkull, and that the membrane is not corroded. I have ſeen horſes in this ſtate, fat upon the rib, and capable of conſiderable labour, although dull and ſad; but the peculiar leading ſymptoms of glanders were in full force upon them, to wit, the tumefaction of the kernels, and the rottenneſs of the hair; the diſcharge alſo continued conſtant with no abatement from time. I have my doubts whether this milder ſpecies be at all infectious, and am in want of information why a ſuperior degree of malignancy exiſts in the other, unleſs it be entirely attributable to the circumſtance of the diſcharge in that caſe ſuffering greater impediment.

As to a *Cure for the Glanders*, the eaſieſt, cheapeſt, and that which never fails in the moſt deſperate caſes, after every other remedy has failed, is—the *Collar-Maker's Knife*—In nine caſes out of ten, that is perhaps eligible; but the caſe of a valuable or favourite horſe, or that of mere curioſity, and a laudable attempt at improvement, may juſtify an experiment. There is a natural alliance between ignorance and cruelty; and the old farriers had a moſt cruel pretended cure for this diſeaſe; according to BLUNDEVIL, "they twined out the pith of the horſe's back, with a long wire thruſt up into his head, and ſo into his neck and back." It has long ſeemed probable to me, that there is great analogy between glanders and ſyphilis, and that brute patients under the former diſeaſe confirmed, ought to be treated like men in a venereal hectic. Mercurial and antimonial alterants, agglutinants, gums, woods, turpentines, opium, reſtoratives, particularly bark. What would be the effect of the famous noſtrum of Paracelſus, opium joined with mercury? Or a courſe of ſublimate continued for a time, the favourite medicine of BOYLE, BOERHAAVE, and DARWIN? What of the gaſes (if that could be afforded) of electricity in repeated percuſſions through the head and breaſt? In moſt attempts at cure that I have ſeen or heard of, the ulcers have been deterged and healed, but temporarily, the gleet recurring after awhile; which I think evidently proved that the virus had pervaded the maſs of humours, and that internal medicines had not been enough attended to. GIBSON records two very ſatisfactory inſtances of cure, and in BARTLET may be found a very rational method both of cure and prevention, which laſt is no doubt the chief object; in this author, the uſe of the trepan is explained with plates.

Dr. DARWIN ſeems to refer this diſeaſe entirely to contagion, without being aware, that according to all experience, the horſes which become glandered from contagion, either of the air, or of other horſes, are few indeed to thoſe which contract it from common colds neglected, and hard keeping. In caſe of the epidemic, the doctor recommends once bleeding, and a mild purgative of aloes and hard ſoap; on the appearance of ſymptoms of debility, with cold extremities and ſloughs in the membrane; half an ounce of tincture of opium in a pint of ale, every ſix hours. Turning ſuch out to graſs with the gleet upon them, I have never known to ſucceed.

In general, thoſe who have attempted the cure of this veterinary opprobrium, have made a too violent uſe of medicines of one claſs, have totally neglected thoſe of another, perhaps the moſt material, and have expected ſucceſs at too early a period. As to the external application, LA FOSSE ſhould be punctually followed, and the mercurials and antimonials given in moderate doſes, and long continued, with the woods, gums, &c. On the proſpect of the glanderous virus being ſubdued, a pretty long courſe of corroborants, among which equal quantities of oak-bark, and the yellow Peruvian bark, with ſteel, are moſt to be depended on, ſhould conclude the medical part. A long run at graſs afterwards, and if the patient be a mare, the horſe.

A Chalybeate Beer, may be made as follows: Steel filings, ſixteen ounces; cinnamon and mace, each two ounces; gentian-root bruiſed, four ounces; anniſeeds bruiſed, three ounces. Infuſe in one gallon fine, clear, old, ſtrong beer for a month, ſtopped cloſe, ſhaking often, then ſtrain. Give half a pint for a doſe, in a pint of cold water, once or twice a day, upon an empty ſtomach, leaving the horſe an hour or two to his repoſe. I have taken this from the *Vinum Chalybeatum* of BOERHAAVE, ſubſtituting old beer, which I have reaſon to believe a good menſtruum for the ſteel, inſtead of *Rheniſh* wine; and adding one of the beſt bitters. Should cinnamon and mace be thought too expenſive, *Jamaica* pepper, or allſpice, would be a cheap and proper ſubſtitute. It was the opinion of that great man, that no drug, diet, or regimen, could equal the preparations of iron, for promoting that power in the animal body by which blood is made; of courſe, it muſt be a powerful ſpecific, in all caſes of over relaxed ſolids, debilitation and conſumption. Would not chalybeate beer be a cheap and efficacious medicine for the poor?

Emollient Ejection.

Take linſeed, one ounce; chamomile-flowers, a handful; boil them gently for a few minutes in a pint and half of water; then ſtrain off the liquor, to be uſed three or four times a-day, as warm as can be admitted, without injuring by the heat. If theſe procure not an abatement of the diſcharge, in ten or fourteen days, uſe lime-water, or the following

Reſtringent Injections.

Take roach allum, one ounce: diſſolve it in a quart of lime-water, and add of ſharp vinegar, half a pint. Or,

Take of allum and white vitriol, of each four ounces; calcine them in a crucible, and when cold, powder the calx, and mix it with a gallon of lime-water, and a quart of vinegar. Let the whole ſtand till the heavy parts are ſubſided, and then decant the liquor for uſe.

This injection muſt be thrown up with a ſyringe three times a day, as before ordered, and the noſtrils fumigated

fumigated with the powders of frankincenſe, maſtic, amber and cinnabar, burnt on an iron heated for that purpoſe; the ſmoke or fume of theſe ingredients being eaſily conveyed through a tube into the noſtrils.

This method, if begun in time, will prove ſucceſsful. But when the diſeaſe is of long ſtanding, or very inveterate, there is no other method of cure, than by trepanning the cavities above deſcribed; that is, cutting out a piece of the bone, with a proper inſtrument, and waſhing the parts affected with proper medicines: for by this means the morbid matter will be removed, and the wound and perforation will ſoon fill up with good fleſh. No perſon however can perform this operation unleſs he well underſtands the anatomy of an horſe, and the manner of conducting ſuch manual actions; ſo that it will be needleſs to deſcribe it here.

But as internal medicines are uſeful in the cure of moſt diſorders, ſo in the glanders they are abſolutely neceſſary. Give therefore the creature a quart or three pints of a ſtrong decoction of guaiacum chips, every day during the whole cure, and purge him at proper intervals. A rowel in his cheſt will alſo be of great uſe.

For the cure of the glanders, MORTIMER gives the following receipt. Take a pint of children's chamberlye, two ounces of oil of turpentine, half a pint of white-wine vinegar, four ounces of flour of brimſtone, half a handful of rue; boil this compoſition till it comes to a pint, and give it to the horſe faſting; and let him faſt after it ſix hours from meat, and twelve from water.

GLEAD. A ſort of kite, a bird of prey, which may be taken with lime twigs in the following manner: When you have found any carrion on which kites, crows, pies, *&c.* are preying, ſet lime twigs every night about the carrion, but let them be ſmall and not ſet too thick; if otherwiſe, they being ſubtle birds, they will ſuſpect ſome danger or miſchief intended againſt them.

When you perceive one to be faſt, do not advance to him preſently, for moſt commonly when they are ſurely caught they are not ſenſible thereof.

They may be taken another way, and that is, by joining to a packthread ſeveral nooſes of hair up and down the packthread, and pegging it down about a yard from the carrion: for many times when they have gotten a piece of fleſh, they will be apt to run away to feed by themſelves, and if your nooſes be thick, it is two to one but ſome of the nooſes catch him by the eg.

GLYSTERS FOR HORSES. *See* PURGING CLYSTERS, *&c.*

GOATS are a kind of cattle that take delight in buſhes, briars, thorns, and other trees, rather than in plain paſture grounds, or fields.

The buck goat has under his jaws two wattles or tufts like a beard; his body ſhould be large, his legs big, his joints upright, his neck plain and ſhort, his head ſmall, eyes large, and horns large and bending: his hair thick, clean and long, being in many places ſhorn for ſeveral uſes.

He is of great heat, and alſo ſo vicious, that he will not ſhun covering his own dam, though ſhe be yet milch; through which heat he ſoon decays, and is nigh ſpent before he is ſix years old.

The female goat alſo reſembles the male, and is valued if ſhe have large teats, a great udder, hanging ears, and no horns, at leaſt ſmall ones.

There ought not to be above 100 of them in one herd, and in buying it is better to buy ſeveral out of one herd, than to chuſe in divers parts and companies, that ſo being led to their paſture, they may not ſeparate, and they will better agree in their houſes, the floor of which ought to be paved with ſtone, or elſe naturally to be of gravel, for they are ſo hot, they muſt have no litter under them, but yet muſt be kept very clean.

The chief time of coupling them, or covering with the buck, is in autumn, before the month of *December*, that ſo they may kid and bring forth their young the better, againſt the leaf and graſs ſpring freſh and tender; at which time they will give the more milk.

They are very prolifick, bringing forth two and ſometimes three kids at a time; the bucks muſt be a little corrected and kept low to abate the heat and laſciviouſneſs of their natures, but young does ſhould be allowed to have abundance of milk.

Neither ſhould you give any kid to a goat of a year or two old to nouriſh, for ſuch as they bring within the ſaid time are improper for it.

You muſt not keep your goats longer than eight years, becauſe they being by that time weakened by often bearing, will become barren.

Theſe animals require ſcarce any thing that is chargeable to keep them, for they browſe and feed wholly together as ſheep do, and climb up mountains againſt the heat of the ſun with great force; but they are not ſo fit to be about houſes as ſheep are; being naturally more hurtful to all manner of herbs and trees.

As for their diſtempers, except it be in a few particulars, they are the ſame as thoſe of ſheep.

The chief profit of them is their milk, which is eſteemed the greateſt nouriſher of all liquids (womens milk only excepted) and the moſt comfortable and agreeable to the ſtomach; ſo that in barren countries it is often mixed with other milk for the making of cheeſe, where they have not a ſufficient ſtock of cows.

The young kids are very good meat, and may be managed in all reſpects after the ſame manner as lambs.

GODWITS, as alſo knots, grays, plovers, and curlews, being fowls eſteemed of all others the moſt dainty and deareſt, are effectually fed with good chilter wheat and water, given them three a day, *viz.* morning, noon and night; but to have them extraordinary fine, take ſome of the fineſt wheat meal, and mingle it with milk, and make it into a paſte, conſtantly ſprinkling it while you are kneading it, with grains of ſmall chilter wheat, till the paſte be fully mixt together therewith, then make it up into little pellets, and ſteeping them in water, give to every fowl according as he is in largeneſs, till his gorge be well filled, and continuing to do this as often as you find his gorge empty, and in a fortnight's time they will be very fat; and with this cramming any kind of fowl whatever may be fattened.

GOING TO THE VAULT (with Hunters) a term uſed of a hare, which ſometimes, though but ſeldom, takes the ground like a coney.

GOLDFINCH. A ſeed bird of very curious colours, and were they not ſo plentiful, would be highly eſteemed by us.

They are uſually taken about *Michaelmas*, and will ſoon become tame; but they differ very much in their ſong, for ſome of them ſing after one faſhion, and ſome of them after another.

They frequently breed in the upper part of plum-trees, making their neſts of the moſs that grows upon apple-trees, and of wool: quilting the inſide with all ſorts of hairs they find upon the ground.

They breed three times a year, and the young are to be taken with the neſt at about ten days old: and to be fed as follows:

Pound the hemp-ſeed very fine in a mortar, then ſift it through a ſieve, and add to it as much white bread as hemp ſeed, and alſo a little flour of canary ſeed; then with a ſmall ſtick or quill, take up as much as the bigneſs of a white pea, and give them three or four of theſe, ſeveral times a day; this ought to be made freſh every day; for if it be ſour it will preſently ſpoil their ſtomachs, cauſing them to caſt up their meat; which if they do, it is ten to one if they live.

Theſe young birds muſt be carefully kept warm till they can feed themſelves, for they are very tender, yet may be brought up to any thing.

In feeding, be ſure to make your bird clean his bill and mouth, if any of the meat falls upon his feathers take it off or elſe they will not thrive.

Such as eat hemp-ſeed, to purge them, ſhould have the ſeeds of melons, ſuccory, and mercury; or elſe let them have lettuce and plantane for that purpoſe,

When there is no need of purging, give them two or three times a week a little ſugar or loam in their meat, or at the bottom of the cage; for all ſeeds have an oilineſs, ſo that if they have not ſomething to dry it up, in length of time it fouls their ſtomachs and puts them into a flux, which is of very dangerous conſequence.

GONORRHÆA, MATTERING, AND FALL OF THE PENIS, IN HORSES. A ſtallion weakened by too much covering, will ſometimes have a thin white diſcharge. Bathe the teſticles with the reſtringent embrocation at night, and waſh them in the morning with cold water, rubbing them dry with a cloth. Or, ride him up to the belly in water every morning the firſt thing.

A ſtrengthening Ball. Balſam of Capivi, olibanum, and maſtic powdered, each two drachms, bole ammoniac, half an ounce; ball with honey and liquorice powder, and give it night and morning; afterwards once a day, as long as wanted. Should there be a foul ichorous diſcharge from chafing or ulceration, externally or internally, firſt waſh well with ſoap and water warm, which it may be alſo uſeful to inject. Apply the following, milk-warm, to any excoriation or ſore, with a ſoft rag or ſponge: lime-water, one quart; ſugar of lead, half an ounce. Mix. In caſe of fungous fleſh, half an ounce of vitriol may be added. Or, liniment of turpentine, and honey of roſes. For an injection, take balſam of capivi, half an ounce, with the yolk of an egg, add lime water, half a pint; honey of roſes, two ounces. The yard being much inflamed and ſwelled, foment as often as neceſſary, with leaves of mallows and marſhmallows, chamomile flowers, melilot, and fumitory, each three handfuls; roſemary, wild thyme, ſouthern-wood, and elder-flowers, each two handfuls; juniper and laurel-berries bruiſed, each four ounces. Boil in eight quarts of water to ſix. Strain and foment with two flannels, by turns, as warm as convenient, morning and evening. A pint of Britiſh brandy may be added. While uſing, keep it warm over a chafing-diſh. The remaining liquor may be put again on the herbs, for next day's occaſion.

A ſeminal gleet in horſes, from plethora and want of exerciſe, is remedied by veneſection, mild purgatives, alterants, and regular attention to cleanlineſs; but partially in ſome conſtitutions, where the ſeminal ſecretion is very copious: this joined to the other inconvenience of ſtallions being more liable to greaſe and foulneſs than geldings, has often made me wonder that ſo many of the former ſhould be kept in the *London* brewery. That they are more capable of labour, at leaſt that geldings are fully adequate to every purpoſe required. It is a great folly in the breeders to keep ſo many ill-ſhaped horſes ſtoned. Faſt walkers are now the great object of requeſt for the *London* drays, and the beſt cattle noticed of late are geldings.

In a falling of the yard from debility, and relaxation of the muſcles, anoint with wine, one pint, and GOULARD as before (ſee fundament) or oil of roſes and brandy; or foment if much tention, ſuſpending the penis, with a hole left for the urine to paſs. Inject the firſt mixture. It has been adviſed to make ſuperficial punctures about the yard with a ſharp needle, and then to waſh with diſtilled vinegar. The member being returned, bolſter it up ſecurely, and charge with bole, whites of eggs, flour, dragon's-blood, turpentine, and diſtilled vinegar. Diſcharge a pail or two of cold water, from the pump or well, upon the horſe's loins every morning early, rubbing dry; bathe the loins once or twice a day with the reſtringent embrocation, to which may be added oil of origanum. Cordial balls with a few grains of opium.

GORGE (in Falconry) that part of a hawk which firſt receives the meat, and is called the craw or crop in other fowls.

GORGED, *i. e.* ſwelled; this horſe's paſtern joint is gorged, and the other has his legs gorged; you muſt walk him out to diſgorge them, or take down the ſwelling.

GOSHAWK, } (*q. d.* groſs-hawk) a large hawk of
GOSSHAWK. } which there are ſeveral ſorts, differing in goodneſs, force and hardneſs, according to the diverſity of their choice in cawking; at which time, when hawks begin to fail to liking, all birds of prey do aſſemble themſelves with the gothawk and flock together.

GOURDY-LEGS. A diſtemper in horſes, cauſed by pains and other fleſhy ſores.

The

The way to cure them, is firſt to ſhave away the hair upon and about the ſore place, as cloſe as may be, and then to anoint it with linſeed oil and aqua vitæ, ſhaken together till they are perfectly mixt; and renew the mixing of it as often as you have occaſion to uſe it, becauſe they will ſeparate by ſtanding, without being ſhaken; anoint the ſore place with this every day till the ſore be made whole.

GRAYLING. } In angling for this fiſh, your hook
GRAILING. } muſt be armed upon the ſhanks with a very narrow plate of lead, which ſhould be ſlendereſt at the bent of the hook, that the bait (which is to be a large graſshopper, the uppermoſt wing of which muſt be pulled off) may come over it the more eaſily: at the point let there be a cad-bait in continual motion.

The jag-tail, which is a worm of a pale fleſh-colour with a yellow tag on its tail, is an excellent bait for the grayling in *March* and *April*.

The haunts of the grayling are ſo nearly the ſame with thoſe of the trout, that in fiſhing for either you may, in many rivers, catch both.

They ſpawn about the beginning of *April*, when they lie moſtly in ſharp ſtreams.

Baits for the grayling are chiefly the ſame as thoſe for the trout, except the minnow, which he will not take ſo freely. He will alſo take gentles very eagerly. When you fiſh for him with a fly, you can hardly uſe one too ſmall.

The grayling is much more apt to riſe than deſcend; therefore, when you angle for him alone, and not for the trout, rather uſe a float, with the bait from ſix to nine inches from the bottom, than the running-line.

The grayling is found in great plenty in many rivers in the north, particularly the *Humber*, and in the *Wye*, which runs through *Herefordſhire* and *Monmouthſhire* into the *Severn*.

GRAPES. A word ſometimes uſed to ſignify the arreſts, or many tumours that happen in a horſe's legs. *See* ARRESTS.

To GRAPPLE. A horſe is ſaid to grapple, either in one or both legs; the expreſſion being peculiar to the hinder legs.

He grapples both legs when he lifts them both at once, and raiſes them with precipitation, as if he were curvetting.

He grapples one leg when he raiſes it precipitately higher than the other, without bending the ham. Hence they ſay,

Your horſe harps or grapples, ſo that he muſt have the ſtring halt in his hough.

GRASS. To put a horſe to graſs, to turn him out to graſs, to recover him.

To take a horſe from graſs to keep him at dry meat. *See* DRY *and* GREEN MEAT.

GRAVELLING. A misfortune that happens to a horſe by travelling, by little gravel ſtones getting between the hoof and the ſhoe, which ſettles at the quick, and there feſters and frets.

The way to cure it, is to take off the ſhoe, and then to draw the place with a drawing iron till you come to the quick; pick out all the gravel, and ſqueeze out the matter and blood found therein, and afterwards waſh it clean with copperas water, then pour upon it ſheep's tallow and bay ſalt melted together, ſcalding hot, ſtop up the hole with hards, and ſet the ſhoe on again, and at two or three times dreſſing it will be whole; but do not travel or work him before he is quite well, or let his foot come to any wet.

GRAY-HOUND. } A hunting dog that deſerves
GRE HOUND. } the firſt place, by reaſon of his
GREY-HOUND. } ſwiftneſs, ſtrength and ſagacity in purſuing his game; for ſuch is the nature of this dog, that he is ſpeedy and quick of foot to follow, fierce and ſtrong to overcome, yet ſilent, coming upon his prey unawares.

The beſt of them has a long body, ſtrong and pretty large; a neat ſharp head, ſparkling eyes, a long mouth and ſharp teeth; little ears with thin griſtles, a ſtraight broad and ſtrong breaſt, his fore legs ſtraight and ſhort, his hind legs long and ſtraight, broad ſhoulders, round ribs, fleſhy buttocks, but not fat, a long tail, and ſtrong, and full of ſinews.

Of this kind, thoſe are always fitteſt to be choſen among the whelps that weigh lighteſt, for they will be ſooner at the game, and ſo hang upon it, hindering its ſwiftneſs, till the heavier and ſtrong hounds come to offer their aſſiſtance; and therefore, beſides what has been already ſaid,

It is requiſite for a greyhound to have large ſides, and a broad midriff, ſo that he may take his breath in and out more eaſily: his belly ſhould be alſo ſmall, (which otherwiſe would obſtruct the ſwiftneſs of his courſe) his legs long, and his hairs thin and ſoft: the huntſman is to lead theſe hounds on his left hand, if he be on foot, and on the right if he be on horſeback.

The beſt time to try and train them to their game, is at twelve months old, though ſome begin ſooner with them; with the males at ten months, and the females at eight months old, which laſt are generally more ſwift than the dogs; they muſt alſo be kept in a ſlip while abroad, till they can ſee their courſe: neither ſhould you run a young dog till the game has been on foot a conſiderable time, leſt being over greedy of the prey he ſtrains his limbs too much.

The greyhounds are moſt in requeſt with the *Germans*, who give them the name of *windſpil*, alluding to their ſwiftneſs; but the *French* make moſt account of thoſe that are bred in the mountains of *Dalmatia*, or in any other mountains, eſpecially of *Turky*, for ſuch have hard feet, long ears, and a briſtly or buſhy tail.

As to the breeding of greyhounds, in this you muſt have reſpect to the country, which ſhould be champagne, plain, or high downs.

The beſt vallies are thoſe where there are no coverts; ſo that a hare may ſtand forth, and endure a courſe of two or three miles.

Take notice as to the breeding of greyhounds, that the beſt dog upon an indifferent bitch, will not get ſo good a whelp as an indifferent dog upon the beſt bitch.

Obſerve in general as to breeding; that the dogs and bitches, as near as you can, be of an equal age, not exceeding four years old; however, to breed with a young

young dog and an old bitch, may be the means of producing excellent whelps, the goodneſs of which you may know by their ſhapes.

In the breeding of greyhounds in the firſt place, the dieting of greyhounds conſiſts in theſe four things, food, exerciſe, airing, and kennelling.

The food of a greyhound is two-fold; in general, the maintaining of a dog in good bodily condition; and in particular, when a dog is dieted for a wager, or it may be for ſome diſtemper he is troubled with.

The general food of a greyhound ought to be chippings, cruſts of bread, ſoft bones and griſtles; the chippings ſcalded in beef, mutton, veal, or veniſon broth: and when it is indifferent cool, then make your bread only float in good milk, and give it your greyhounds morning and evening, and this will keep them in a good ſtate of body.

But if your dog be poor, ſickly and weak, then take ſheeps heads, wool and all, clean waſhed, and having broke them to pieces, put them into a pot; and when it boils, ſcum the pot, and put a quantity of oatmeal into it, and ſuch herbs as pottage is uſually made with; boil theſe till the fleſh is very tender, and feed your dog with this morning and evening, and it will recover him.

If you deſign your greyhound for a wager, then give him his diet bread as follows: take half a peck of good wheat, and half a peck of the fineſt, drieſt oatmeal, grind them together, boult the meal, and having ſcattered in it an indifferent quantity of liquorice and anniſeeds, well beaten together, knead it up with the whites of eggs and bake it in ſmall loaves, indifferent hard, then ſoak it in beef or other broths; and having walked him and aired him half an hour after ſun-riſe in the morning, and half an hour before ſun-ſetting, give him ſome of it to eat.

He ought to be courſed three times a week, rewarding him with blood, which will animate and encourage him to proſecute his game; but forget not to give the hare all the juſt and lawful advantage, ſo that ſhe may ſtand long before the greyhound, that thereby he may ſhew his utmoſt ſtrength and ſkill before he reap the benefit of his labour.

If he kill, do not ſuffer him to break the hare, but take her from him, and clean his chaps from the wool of the hare, give him the liver and the lights, and then take him up in your leaſh, lead him home, and waſh his feet with ſome butter and beer, and put him into the kennel, and half an hour afterwards feed him.

Upon the courſing days, give your hound a toaſt and butter, or oil, in the morning, and nothing elſe, and then kennel him till he goes to the courſe.

The kennelling greyhounds after this manner breeds in them luſt, ſpirit, and nimbleneſs; it alſo prevents ſeveral dangerous caſualties, and keeps the pores cloſe, ſo as not to ſpend till time of neceſſity; therefore ſuffer not your hound to go out of the kennel, but at the hours of feeding, walking, courſing, or other neceſſary buſineſs.

GREASE [with Hunters] the fat of a boar or hare; but the former has commonly the word bevy added to it, and is termed bevy greaſe.

GREASE MOLTEN. A diſtemper in a horſe, when his fat is melted by over hard riding or labour, and may be known by his panting at the breaſt and girting place, and heaving at the flank, which will be viſible to be ſeen the night you bring him in, and the next morning.

GREASE. The greaſe in horſes, is an extravaſation, or burſting from the veſſels, and afterwards through the ſkin, of *ſerum*, or ſimple humour, in the legs and heels, from the want either of exerciſe, or the recumbent poſture, to promote the circulation of the fluids in thoſe depending parts, "as (according to veterinarians, whoſe opinion is here ſanctioned by Dr. DARWIN) the column of blood preſſing on the origins of the veins of the lower extremities, when the body is erect, oppoſes the aſcent of the blood in them; they are more frequently liable to become enlarged, and to produce varixes, or vibices, or, laſtly, ulcers about the legs, than on the upper parts of the body." That ſuch is the cauſe, appears from the well known circumſtance of the horſe being free from greaſe abroad, where he conſtantly walks about to obtain his food, or ſtretches himſelf upon the ground at his eaſe. If the horſe be full of fleſh, the cure is to be begun by evacuation, ſuch as bleeding, purging, *&c.* and keeping his heels as clean as poſſible, by waſhing them with warm water and ſoap; for nothing promotes the greaſe more than negligence and naſtineſs. In general turning out in the day-time, moderate exerciſe, a large and convenient ſtall, with good dreſſing, are the beſt remedies; but if the greaſe be got to a great height, and there is a nauſeous diſcharge, after cutting off the hair, and waſhing the heels with ſoap and water, bathe them with the following wound water, pretty warm, twice or thrice for three days. Take roch allum, and white vitriol, of each two ounces; powder them together and burn them in a clean fire ſhovel, till they become a white calx; then take powdered camphire, one ounce, bole armoniac, in powder, two ounces; river or rain water two quarts. Make the water hot, and ſtir the other things into it. When you uſe it, it ſhould be ſhaken up, and a little of it warmed in a pot, and the ſores waſhed with a piece of ſponge or rag. Or,

Take of lime-water a pint, of rock-allum and white vitriol, each an ounce.

Some uſe a laced ſtocking, which may be made of ſtrong canvas that will not ſtretch; this ſtocking ſhould be nicely fitted to the leg, and kept on moderately tight, by which means the enfeebled veſſels will be ſupported until they recover their tone.

Sometimes there will be cracks in the ſkin about the paſterns: theſe cracks are ſore, and diſcharge a thin humour, which lodges ſand and dirt; and ſometimes theſe cracks form themſelves into ſcabs; when theſe are obſerved, clip the hair there as ſhort as poſſible, ſpread a thin pledget of tow, with the digeſtive ointment, and apply it to theſe cracks and ſcabs; over this pledget lay a poultice of bran, ſcalded, and renew the pledget every morning, and the poultice every four or five hours; continue theſe until the ſwelling abates, and the cracks, *&c.* are diſpoſed to heal: then,

then, inſtead of the ointment and poultice, waſh the part every day with the above repellent waſh, and keep on a tight ſtocking until the ſtrength of the part is confirmed. *See* SCOWERING.

But if theſe ſhould fail, let the part be bathed with old verjuice twice a day, and a proper bandage applied. This will infallibly anſwer if the complaint proceeds from a relaxation of the veſſels. If the horſe be full of fleſh, the cure muſt be begun by bleeding, rowels, and repeated purging; after which, the following balls ſhould be given, to the quantity of two ounces a day for a month or ſix weeks, either mixed up with honey, or in his feeds: Take of yellow roſin four ounces, ſalt of tartar and ſalt of prunel, of each two ounces; of Caſtile ſoap half a pound; and of oil of juniper half an ounce; make the whole into balls of two ounces each, and give one of them every morning.

Theſe balls will carry off the offending humours, and free the blood from its noxious qualities; but at the ſame time the creature takes theſe internal medicines, external applications muſt not by any means be omitted. The legs ſhould be bathed and fomented in order to breathe out the ſtagnant juices, or render them ſo thin, that they may be able again to circulate with the common current. The diſcutient fomentation, mentioned in the Articles of tumours, &c. will anſwer the intention, eſpecially if a handful of wood-aſhes be previouſly boiled in the water and applied twice a-day. After the parts have been well fomented, let the following poultice be applied; and this method purſued till the ſwellings are ſubſided: Take of honey one pound, of turpentine ſix ounces, incorporate theſe well together with a ſpoon; and of the meal of fenu-greek and linſeed, of each four ounces; and boil the whole in three quarts of red wine lees, to the conſiſtence of a poultice. Take the veſſel from the fire, and add two ounces of camphire in powder; ſpread it on thick cloths, and apply it warm to the legs, ſecuring it on with a ſtrong roller.

When the ſwelling is ſubſided, the ſores ſhould be dreſſed with the following ointment: Take of honey four ounces; of white lead powdered, two ounces; and of verdigris in fine powder, one ounce; mix the whole into an ointment.

But if the ſores are very foul, dreſs them with two parts of the wound ointment and one of ægyptiacum, and apply the following poultice: Take of black ſoap one pound; of honey half a pound, of burnt alum four ounces, of verdigris, powdered, two ounces, and of wheat-flour a ſufficient quantity to make the whole of a proper conſiſtence.

Spread the above on a thick cloth, and faſten it on with a roller.

This diſorder is always attended with fever, heat, reſtleſſneſs, ſtarting, and trembling, inward ſickneſs, and ſhortneſs of breath.

His dung is extremely greaſy, and he will often fall into a ſcowering; his blood, when cold, will be covered with a thick ſkin of fat, of a white or yellow colour, generally the latter; the congealed part of the ſediment appears like a mixture of ſize and greaſe, ſo extremely ſlippery that it will not adhere to the fingers, and the ſmall portion of ſerum ſlippery and clammy. The creature ſoon loſes his fleſh and fat, the latter of which is probably diſſolved into blood: and thoſe that have ſtrength ſufficient to ſuſtain the firſt ſhock, commonly grow hide-bound for a time, and their legs ſwell greatly, in which ſtate they continue till the blood and juices are rectified; and if this be not done effectually, the farcy or ſome obſtinate ſurfeit is generally the conſequence, and cannot be removed but with the greateſt difficulty.

Horſes living upon grains, and other waſhy and unſubſtantial food, are very liable to greaſe; the fooliſh cuſtom of clipping, or pulling the heels entirely naked to the ſkin in cold wintry weather, as we often ſee poor poſt-horſes ſerved, alſo ſubjects them to chilblains and chaps, which ſoon become greaſy. It may endanger a relapſe, to ſuffer horſes recovering from the diſorder to go abroad with the cracks expoſed to the air; a Burgundy-pitch plaiſter is uſeful.

Method of Cure.

The firſt proceeding is to bleed pretty plentifully, and repeat the operation two or three days ſucceſſively, but to take care after the firſt bleeding to take a ſmall quantity at a time, as otherwiſe the creature would be rendered too weak to ſupport himſelf, and his blood too poor to be eaſily recruited. As ſoon as he has been bled the firſt time, let two or three rowels be made, and the emollient clyſters preſcribed in the Article of Fevers, be daily thrown up to mitigate the fever, and cleanſe the inteſtines from greaſy matter. Plenty of water-gruel ſhould at the ſame time be given him, and ſometimes warm water, with a ſmall quantity of nitre diſſolved in it. The latter will be of great ſervice, as it will prevent the blood from running into grumous concretions, that prove the ſource of innumerable diſorders, if not cauſe a total ſtagnation, and conſequently the death of the animal.

In this manner the horſe muſt be treated till the fever is wholly gone, and he has recovered his appetite, when it will be neceſſary to give him five or ſix alternative purges at a week's diſtance from each other, which will make him ſtale and perſpire plentifully, and at the ſame time bring down the ſwellings of his legs. The following are well calculated for this purpoſe: Take of ſuccotrine aloes, ſix drachms; of gum-guaiacum, in powder, half an ounce; and of diapente, ſix drachms; make the whole into a ball with a ſpoonful of oil of amber, and a ſufficient quantity of ſyrup of buckthorn. Or,

Take of ſuccotrine aloes, an ounce (or ten drachms); ſalt of tartar, half an ounce; ginger, one drachm; treacle, enough to make a ball; if it be neceſſary to quicken this doſe, add to it two drachms of jalap powder.

Repeat this purging ball every eight, or at the moſt every ten days, and on the days free from purging, give one of the following every morning.

Diuretic

Diuretic Balls.

Take of Venice-ſoap, and yellow roſin, each half a pound; ſalt of tartar and nitre, each two ounces; oil of juniper, half an ounce; beat them into a paſte, and give two ounces, or more, every morning, making it firſt into a ball.

Inſtead of theſe balls, two ounces of nitre may be given every day, allowing plenty of water with it; where it agrees with the ſtomach it anſwers very well, but as the blood in this diſorder is poor and cold, and the whole habit of body needs every aſſiſtance that can contribute to its recovery, the above balls are the moſt adviſeable, and would be much improved as ſtrengtheners, if to each doſe you added half an ounce of the filings of iron, or ruſted iron in powder.

If the legs are extremely full, foment them twice a-day with a fomentation made with bay-berries, worm-wood, and chamomile-flowers; an ounce, or a little more of each may be allowed for a gallon of water, to be boiled together for a few minutes; and if the ſores be very foul, dreſs them with the cleanſing ointment, ſpread on pledgets of fine tow, large enough to cover them.

Cleanſing Ointment.

Take half a pound of the digeſtive ointment, melt it gently over a fire; when melted remove it, and as it cools, carefully ſtir into it an ounce of verdigris, finely powdered; continue to ſtir it until the ointment becomes ſtiff.

Over the pledgets that cover the ſores apply the following poultice as often as you uſe the fomentation.

Diſcutient Poultice.

Scald a ſufficient quantity of bran, with a proper quantity of the fomentation juſt now preſcribed; add to it a ſmall quantity of oil to prevent it from drying and ſticking, and ſprinkle upon the face of each poultice when applied, a quarter of an ounce of camphire.

Whatever medicines or methods are uſed, a good nouriſhing diet ſhould be allowed; and, if poſſible, the horſe muſt be put to graſs where he can ſhelter himſelf in a ſtable or a ſhed, at pleaſure: the want of this laſt will greatly prevent the effect of the beſt medicines, and with it medicines will rarely be wanted. If he cannot be turned out day and night, nor even in the day-time, he muſt have a roomy ſtall, where he can move about, lay down, and ſtretch himſelf at full length: it would be beſt if he had the whole ſtable to walk in, for then he would be more apt to lay down often; a circumſtance that conduces very much to advantage, for conſtant ſtanding in a ſtall is what frequently cauſes, and by conſequence muſt continue the diſeaſe.

By purſuing this method the horſe will ſoon be able to do his buſineſs: for this purge will increaſe his fleſh, and mend his appetite; particulars of the greateſt conſequence in the cure, and which cannot be obtained by giving a horſe the common purges of aloes; the method purſued by moſt farriers in the cure of the molten greaſe.

GREAT-HARE (with Hunters) a hare in the third year of her age.

GREEN FINCH, is a bird of a very mean ſong.

They are plentiful in every county, and breed the ſillieſt of any, commonly making their neſts by the highway ſide, where every body that finds them deſtroys them at firſt, till the hedges are pretty well covered with green leaves; but they uſually ſit very early in the ſpring, before the hedges have leaves upon them, and build with green moſs that grows at the bottom of the hedges, quilting their neſts very ſorrily on the inſides; nay, they are oftentimes ſo ſlight that a ſtrong wind ſhakes them to pieces, and drops either the young ones or the eggs.

However, they hatch three times a year, and the young are very hardy to bring up: they may be fed with white bread and rape ſeed ſoaked, and are very apt to take the whiſtle, rather than any other bird's ſong; but they will never kill themſelves with ſinging and whiſtling.

The green-finch is ſeldom ſubject to any diſeaſe, but to be too groſs, there being none of the ſeed-birds like him for growing ſo exceſſive fat, if you give him hemp-ſeed, for then he is good for nothing but the ſpit; let him therefore have none but rape-ſeed.

GREEN-HUE (in the Foreſt Law) ſignifies every thing that grows green within the foreſt: and it is alſo called VERT, *which ſee.*

GRICE. A young wild boar.

GRIG. A fiſh, the ſmalleſt kind of eel.

GRIPES, OR CHOLIC IN HORSES. This has been treated of under the Head of Cholic: we here ſhall give Mr. LAWRENCE's treatment. He ſays, the primary cauſe of a common fit of the gripes in a horſe, is nine times out of ten, an accumulation of indurated excrement in the inteſtines; for independent of the ſolid obſtruction ſo occaſioned, the uſual proximate cauſes would ſeldom have power to work thoſe ſerious effects we witneſs; thus in a horſe, the colon of which was not previouſly infarcted and plugged up, the effect of a ſlight cold thrown upon the bowels, or the devouring a few new beans, would probably paſs off with a very moderate ſtruggle from nature.

The ſymptoms ſcarce need deſcription; cold dew at the ear-roots and flanks; frequent pointing to the ſeat of complaint, and a deſire to lie down and roll: ſudden riſing and great agitation; the greatneſs of the agitation, or rather jactitation, no convulſions exiſting, ſeems to form the diagnoſtic in all cholicky complaints.

The cure requires prompt and vigorous meaſures, and plenty of aſſiſtants to conduct them. Looſe ſtable, or out-houſe, well littered down, that the horſe may have room to roll himſelf, without injury. Clothe with warm dry clothes. Man to attend the head, that it be not beat againſt the pavement or wall; another or two to rub the belly well at every quiet interval; a more

effectual

effectual help than generally imagined, to diſperſe the wind. Bleed, if poſſible in the neck veins, not only to aſcertain the quantity, but becauſe ſurely it cannot be irrational to ſuppoſe ſuch a ſubſtance as blood, improper to be taken into the ſtomach, under the circumſtances. Whilſt medical remedies are preparing, walk the horſe about briſkly in hand, one following with a whip: or keep him to the jog-trot, but drive him not faſt, or harraſs him, on any pretence, which has ruptured the belly of many a horſe, and which at leaſt often inflames and exaſperates the ſymptoms. Back-rake with a ſmall hand well oiled, and give the common gruel clyſter, with half a pint of oil, and a large handful of ſalt: immediately poured down by the mouth, half a pint of Holland's geneva, rum or brandy, and a like quantity of ſweet oil mixed, or a little diluted with thin gruel, if thought too ſtrong; keep the horſe on his legs, and exerciſe him forthwith. If to be obtained ſoon, and demanded by the exigence, add to the clyſter four to ſix ounces of Glauber's ſalts. Or, of tincture of jalap, or of ſenna, two ounces. Or beſt aloes in very fine powder, half an ounce. And to the drink, three or four ounces ſyrup of buckthorn. Or, *Elixir Proprietatis*, or *Tinctura ſacra*. Caſtor oil may be uſed inſtead of olive. A notched onion may be thruſt up the fundament: or an onion and a piece of ſoap the ſize of an egg, beat up together into a ſoft bolus, with a pinch or two of pepper; afterwards a clyſter of black ſoap, one ounce to a pint of warm water. Should ſuppreſſed perſpiration thrown on the bowels be among the cauſes, the warm ſeeds ginger, caſtor, and camphor, ſhould make part of both the drinks and clyſters. For a large cart-horſe, where wind is not the predominant ſymptom, and no appearance of cold, the following drink: Gin, brandy, or rum, and ſweet oil, one pint each, mix with the ſolution of ſix ounces Glauber's ſalts, repeat in two or three hours, warm gruel in the interim. The repetition of theſe muſt be left to the judgment of the practitioner; but plenty of warm gruel and warm water, ſhould ever, in theſe caſes, be at immediate call, as ſometimes the throwing in two or three gallons of theſe at both ends, and at proper intervals, will do the needful with little or no aſſiſtance from the apothecary. BRACKEN cautions againſt the common practice of farriers, who give large quantities of Venice treacle, mithridate or diaſcordium, both by way of drink and clyſter, upon loaded inteſtines; thereby locking up the cauſe of the diſeaſe ſtill more ſecurely: he compares it to firing a piſtol into the horſe's fundament, by way of clearing all obſtructions at once. Maſhes. A week after the cure, a gentle purge or two.

The Flatulent, or Wind Cholic, is known by great fullneſs and tenſion of the belly, from rarefaction of the air contained in the inteſtines; *borborigmi*, or rumbling of the guts, diſcharges of wind, and frequently ſtrangury, occaſioned by the fullneſs and preſſure of the ſtraight gut upon the neck of the bladder; this laſt is denoted by the horſe rolling upon his back, and by frequent ineffectual attempts to ſtale. Crib-biters, from conſtantly ſucking in large quantities of air, are particularly ſubject to windy gripes.

The intention of cure plainly conſiſts in the ſpeedy exhibition of volatile and carminative, of diuretic, and laxative medicines, which ought to be given both in the form of clyſter, and by the mouth. Ball. Straſburgh, or Venice turpentine, juniper berries, and carraway ſeeds pounded, each half an ounce; fine aloes well powdered, two drachms; ſal prunel, one ounce; chymical oil of juniper, one drachm; ſalt of tartar, two drachms; ball with honey and hard ſoap. Waſh down with a pint or two warm gruel. OR. The following drink, Caſtile ſoap and nitre, one ounce each; juniper berries, and carraway ſeeds, half an ounce each; ginger powdered, two drachms; Venice turpentine, diſſolved with the yolk of an egg, ſix drachms; tincture of ſenna, an ounce or two. Mix with warm ale and treacle. Repeat. Clyſter with the addition of carminatives; chamomile flowers, two handfuls; aniſe, coriander, and fennel ſeeds, one ounce each; long pepper half an ounce. The following herbs are preſcribed, but as in general there may be a difficulty in obtaining them, you may ſubſtitute water-gruel, which, in truth; is always found an excellent ſubſtitute. Mallows, pellitory, elder-flowers, the herb mercury, mullein, bear's-breech, &c.

ST. BEL remarks on the difficulty of hitting the critical moment, proper for the exhibition of opium in long continued pains; and of regulating the quantum of the doſe. He pretends, that ſhould the opiate be too weak, the pains will be enraged; if too powerful, that it will haſten death. BRACKEN determines the proper time for the uſe of opiates to be, after the cauſe of the diſeaſe ſhall have been removed by lenient purgatives and clyſters; when the former are requiſite to complete the cure, by appeaſing pain, allaying the tumult of the bowels, and obviating ſuperpurgation or flux. Proper forms will be found after the next ſpecies of cholic, ſince they may be neceſſary in both.

The Inflammatory or Red Cholic, is ſuppoſed to originate in ſome internal injury; it is that ſpecies with which race-horſes are ſometimes afflicted, as ST. BEL aſſerts, from the immoderate uſe of purgatives, which act as cauſtics upon the nervous fibres of the ſtomach and inteſtines, and even irritate the extremities of the ſmall blood veſſels to that degree, as to cauſe them to contract, and thereby impede the courſe of the blood.

The common ſymptoms, in this ſpecies are violent; the horſe diſcovers pain if his flanks or belly are preſſed. The conjunctive membrane of the eye appears much inflamed, the anus the ſame, and of a bright red colour; the high degree of inflammation is chiefly occaſioned by the acrimony of the bile. There is an appearance of looſeneſs in the beginning, a little dung is ejected with a hot ſcalding water; ſometimes a burning fever; and the progreſs of inflammation ſo rapid, that a mortification in the abdomen takes place in a few hours.

Bleed as largely as you can with ſafety. In the urgency of the caſe, and before medicines can be obtained, gruel and ſweet oil, or even warm water and oil mixed, may be given at either end. Caſtor oil, one quarter to half a pint; nitre, two ounces; camphor, one drachm; make the drink with gruel, or de-

coction of febrifuge herbs and honey. Repeat, or ſubſtitute within an hour or two: Turkey rhubarb in powder, half an ounce; diapente, one ounce; ſalt of tartar, two drachms; ginger grated, and oil of juniper, one drachm each; ball with oil of amber. A clyſter of the herbs chamomile, mallows, &c. two ounces lenitive electuary. The following Purging Drink, if neceſſary: Senna, two ounces; liquorice root, one ounce; ſalt of tartar, two drachms; carraway and juniper berries bruiſed, one ounce each; boil in a quart of water to a pint, ſtrain and add two ounces lenitive electuary, with good old white wine half a pint. Should a tendency to mortification appear, it muſt be reſiſted by bark and wine, both in drink and clyſters. The drink: White wine, or fine beer, one quart, diſſolve in it the ſize of an egg, common cordial ball, and one ounce Venice treacle (add or omit according to circumſtances) one hundred drops laudanum, and the ſame number tincture of caſtor. Stir well, and give it warm. Or. The ball. Diapente, one ounce; diaſcordium, half an ounce; myrrh, two drachms; ball with liquorice powder, and two drachms oil of amber.

There is no diſtinct or peculiar method of treating the Hepatic, or Bilious Cholic; it is generally inflammatory, and requires ſimilar treatment with the above, regard being had to the medicines preſcribed in the Yellows. The cholic produced by hair-balls, bezoar-ſtones, and concretions in general, is ſaid to be mortal.

To GROAN [with Hunters] a buck is ſaid to groan, or hoot, when he makes a noiſe at running.

GROOM. A man who looks after horſes, and ſhould demean himſelf after ſo gentle and kind a manner towards horſes, as to engage them to love him; for a horſe is reckoned one of the moſt loving creatures to man of all other brutes, and in every reſpect the moſt obedient.

Therefore if he be dealt with mildly and gently his kindneſs will be reciprocal; but if the groom or keeper be harſh and choleric, he will put the horſe out of patience, and make him become rebellious, and occaſion his biting and ſtriking.

Therefore the groom ſhould frequently dally, toy, and play with the horſes under his care, talking to them, and giving them good words, leading them out into the ſun-ſhine, there run and ſhew them all the diverſions he can.

He muſt alſo duly curry-comb and dreſs him, wipe away the duſt, pick and clean him, feed, pamper, and cheriſh him; and conſtantly employ himſelf in doing ſomething about him, as looking to his heels, taking up his feet, rubbing upon the ſoles, *&c.*

Nay, he ought to keep him ſo well dreſt, that he may almoſt ſee his own face upon his coat; he muſt likewiſe keep his feet ſtopped, his heels free from ſcratches and other ſorances, ever having a watchful eye over him, and overlooking all his actions, as well feeding as drinking; that ſo no inward infirmity may ſeize upon him; but that he may be able to diſcover it, and endeavour to cure. The qualifications neceſſary in a groom, are obedience, fidelity, patience, diligence, *&c.*

Firſt, he ought to love his horſe in the next degree to his maſter, and endeavour by fair uſage to gain a reciprocal love from him, and an exact obedience; which if he knows how to obey his maſter, he will the better be able to teach it his horſe: and both the one and the other are to be obtained by fair means, rather than by paſſion and outrage. For thoſe who are ſo irrational themſelves, as not to be able to command their own paſſions, are not fit to undertake the reclaiming of a horſe, who is by nature an irrational creature.

He muſt then put in practice the patience, which he ought at all times to be maſter of, and by that, and fair means, he may attain his end: for no creature is more tractable than a horſe, if he be uſed with kindneſs to win him.

The next thing requiſite to a groom is neatneſs, as to keeping his ſtable clean ſwept, and in order; ſaddles, houſing-cloths, ſtirrups, leathers and girths clean, and above all his horſe clean dreſſed and rubbed.

Laſtly, diligence is requiſite in a daily diſcharge of his duty, and obſerving any the ſmalleſt operation, whether caſual or accidental, either in his countenance, as ſymptoms of ſickneſs; or in his limbs and gait, as lameneſs: or in his appetite, as forſaking his meat; and immediately upon any ſuch diſcovery to ſeek out a remedy.

This is the ſubſtance of the duty of a groom in general.

We will ſuppoſe *Bartholomew-tide* to be now come, and the pride and ſtrength of the graſs to be now nipped by the ſevere froſts and cold dews which uſually accompany this ſeaſon, ſo that the nouriſhment thereof turns into raw crudities, and the coldneſs of the night (which is injurious to horſes) abates as much fleſh and luſt as he getteth in the day, wherefore he is now to be taken up from graſs, whilſt his coat lies ſmooth and ſleek.

The horſe deſigned for hunting, &c. being brought home, the groom muſt ſet him up for that night in ſome ſecure and ſpacious place, where he may evacuate his body, and ſo be brought to warmer keeping by degrees; and the next day ſet him up in the ſtable.

It is indeed held a general rule amongſt grooms, not to clothe or dreſs their horſes till two or three days after their ſtabling; but there ſeems no other reaſon but cuſtom for this practice.

Some alſo give the horſe wheat ſtraw to take up his belly at his firſt houſing; but others utterly diſapprove of it.

For the nature of a horſe being hot and dry, if he feeds on ſtraw which is ſo; likewiſe, it would ſtraiten his guts, and cauſe an inflammation in his liver, and by that means diſtemper his blood; and beſides it would make his body ſo coſtive, that it would cauſe a retention of nature, and cauſe him to dung with great pain and difficulty, whereas full feeding would expel the excrements according to the true intention and inclination of nature. Therefore, let moderate airing, warm cloathing, good old hay, and old corn, ſupply the place of wheat-ſtraw.

The firſt buſineſs of a groom after he hath brought his horſe

horſe into the ſtable, is, in the morning, to water him, and to rub his body over with a warm wiſp, a little moiſtened, and afterwards with a woollen cloth; alſo to clean his ſheath with his wet hand from all the duſt it hath contracted during his running, and to waſh his yard either with white-wine or water.

He muſt then trim him after the manner that other horſes are trimmed, except the inſide of his ears, which ought not to be meddled with for fear of making him catch cold.

In the next place he muſt take him to the Farrier's, and there get him ſhod with a ſet of ſhoes, anſwerable to the ſhape of his feet, and not to pare his feet to make them fit his ſhoes.

Let his feet be well opened between the quarters and the fruſh, to prevent his being hoof bound, and let them be opened ſtraight, not ſideways; for by that means, in two or three ſhoeings, his heels (which are the ſtrength of his feet) will be cut quite away. Pare his foot as hollow as you can, and then the ſhoe will not preſs upon it.

The ſhoe ought to come near the heel, but not to be ſet ſo cloſe as to bruiſe it, nor yet ſo open as to catch in his ſhoes, if he happens to over reach at any time, and ſo hazard the pulling them off, the breaking of the hoof, or bruiſing of his heel.

The webs of his ſhoes ought to be neither too broad, nor too narrow, but of a middling ſize, about the breadth of an inch, with ſtopped ſponges, and even with his foot; for though it would be for the advantage of a travelling horſe's heel, to have a ſhoe ſet a little wider than the hoof on both ſides, that the ſhoe may bear his weight, and not his foot touch the ground, yet the hunter being often forced to gallop on rotten ſpongy earth; if he have them larger it would hazard his lameing, and pulling off his ſhoes, as has been before obſerved.

There is an old proverb, *before behind and behind before;* that is, in the fore feet the veins lie behind, and in the hinder feet they lie before; therefore the farrier ought to take care that he does not prick him, but leave a ſpace at the heel of the fore feet, and a ſpace between the nails at the toe.

Having got his ſhoes ſet on as above directed, a great deal of his hoof will be left to be cut off at his toe.

That being cut off, and his feet ſmoothed with a file, he will ſtand ſo firm, and his feet will be ſo ſtrong, that he will tread as boldly on ſtones as on carpet ground.

The horſe being ſhod, and it being time to water him, let him ſtand in the water, which will (in the opinions of ſome) cloſe up the holes, which the driving of the nails has made.

Afterwards have him gently home, tie him up to the rack, rub him all over, body and legs, with dry ſtraw, then ſtop up his feet with cow-dung, give him a quartern of clean ſifted old oats, and a quantity of hay, ſufficient to ſerve him all night, and leave him till the next morning

To GROPE OR TICKLE, is a method of fiſhing, by putting one's hand into water holes where fiſh lie, and tickling them about the gills; by which means they will become ſo quiet, that a man may take them in his hand and throw them upon land; or if they are large fiſh, he may thruſt his fingers into their gills and bring them out.

GROUND ANGLING, is a way of fiſhing under water without a float, only with a plumb of lead, or a bullet, which is better, becauſe it will roll on the ground.

This method of fiſhing is very expedient in cold weather, when the fiſh ſwim very low.

The bullet is to be placed about nine inches from the baited hook: the top muſt be very gentle, that the fiſh may the more eaſily run away with the bait, and not be ſcared with the ſtiffneſs of the rod: you muſt not ſtrike as ſoon as you ſee the fiſh bite, but ſlack your line a little, that he may the better ſwallow the bait and hook.

As for the tackle, it ought to be fine and ſlender; ſtrong and big lines only ſerve to fright the fiſh.

The morning and evening are the chiefeſt ſeaſons for the ground-line for trout; but if the day prove cloudy, or the water muddy, you may fiſh at ground all the day long. *See* ANGLING.

GROUND BAIT. Such places as you frequently angle at, you ſhould once a week at leaſt, caſt into, all ſorts of corn boiled ſoft, grains waſhed in blood, and dried and cut to pieces, ſnails, chopped worms, fowl's-guts, beaſt's-guts, and livers, by which carp and tench are drawn to the place; and, to keep them together, throw half a handful of ground malt now and then as you angle. *See* BAIT.

GROUND PLUMBING, is the finding out the depth of the water in fiſhing; to do which you ſhould uſe a muſket-bullet with a hole made in the middle of it, or any other ſort of plummet, which muſt be tied to a ſtrong twiſt, and hung on the hook, which will effect the buſineſs. *See* ANGLING.

GROUPADE (in Horſemanſhip) a lofty kind of manage, and higher than the ordinary curvets.

GROUS, a ſpecies of game well known among ſportſmen; of which birds there are ſeveral ſorts.

GRUBBING A COCK (with cock-fighters) a term uſed for the cutting off the feathers under his wings; but this is not allowable by the cock-pit law; neither is it allowable to cut off his feathers in any handling place.

GUDGEON; this fiſh, though ſmall, is of ſo pleaſant a taſte, that it is very little inferior to a ſmelt.

They ſpawn twice in the ſummer ſeaſon, and their feeding is much like the barbels in ſtreams and on gravel, ſlighting all manner of flies; but they are eaſily taken with a ſmall red worm, fiſhing near the ground; and being a leather-mouthed fiſh, will not eaſily get off the hook when ſtruck.

They are uſually ſcattered up and down every river in the ſhallows, in the heat of ſummer; but in autumn, when the weeds begin to grow four or rot, and the weather colder, then they gather together, and get into the deeper parts of the water; and are to be fiſhed for there, with your hook always touching the ground, if you fiſh

for him with a float, or with a cork; but many will fiſh for the gudgeon by hand, with a running-line upon the ground, without a cork, as a trout is fiſhed for; and it is an excellent way, if you have a gentle rod and as gentle a hand.

But although the ſmall red worm before-mentioned is the beſt bait for this fiſh, yet waſps, gentles, and cad-baits will do very well: you may alſo fiſh for gudgeons with two or three hooks at once, and find very pleaſant ſport, where they riſe any thing large: when you angle for them, ſtir up the ſand or gravel with a long pole; this will make them gather to that place, and bite faſter, and with more eagerneſs.

GUNIAD. } This fiſh is excellent food, and is
GUINARD. } not found any where but in a large water called *Pemble-mere*: but that which is moſt remarkable is this, that the river which runs by *Cheſter*, has its head or fountain in *Merionethſhire*, and its courſe runs through this *Pemble-mere*, which abounds as much with guniads as the river *Dee* does with ſalmon, of each both affording great plenty; and yet it was never known that any ſalmon was ever caught in the mere, or ever any guniads taken in the river.

GUN-POWDER. The beſt is ſmall-grained, hard to crumble between the finger and thumb, and of a blueiſh colour. *See* FOWLING-PIECE.

GYRFALCON. *See* GERFALCON.

GYRLE, a roe-buck, ſo called the firſt year.

HAIR, in ſpeaking of horſes, the *French* uſe the word *poil* (*i. e.* hair) to ſignify their colour: and ſometimes it is uſed to ſignify that part of the flank that receives the prick of the ſpur.

Pale hair are thoſe parts of the ſkin that approach more to white than the reſt, being not of ſo high a tinge.

Staring hair (or planted coat) is ſaid of a horſe whoſe hair briſtles up, or riſes upright; which diſorder is owing to being ill curried, not well covered, or too coldly houſed.

In order to make the hair of a horſe ſmooth, ſleek, and ſoft, he muſt be kept warm at heart, for the leaſt inward cold will cauſe the hair to ſtare; alſo ſweat him often, for that will looſen and raiſe the duſt and filth that renders his coat foul; and when he is in the height of a ſweat, ſcrape off all the white foam, ſweat, and filth, that is raiſed up, with an old ſword blade, and that will lay his coat even and ſmooth, and alſo when he is bled, if you rub him all over with his own blood, and ſo continue two or three days, and curry and dreſs him well, it will make his coat ſhine.

Hair falling, or ſhedding from the mane or tail of a horſe, is cauſed either by ſome heat taken, that has engendered a dry mange there; or it proceeds from ſome ſurfeit, which cauſes the evil humours to reſort to thoſe parts.

To cure this, anoint the horſe's mane and creſt with black ſoap; make a ſtrong lee of aſh aſhes, and waſh it all over with it.

But if a canker ſhould grow on a horſe's tail, which will eat away both fleſh and bone; then put ſome oil of vitriol to it, and it will conſume it: and if you find the vitriol corrodes too much, you need only to wet it with cold water, and it will put a ſtop to it.

If you have a mind to take away hair from any part of a horſe's body, rub it with the gum that grows on the body of ivy, or the juice of fumitory that grows among barley, or boil half a pound of lime in a quart of water, till a fourth part is conſumed: to which add an ounce of orpiment, and lay a plaiſter on any part of the horſe, and it will do the buſineſs in a few hours.

The hair being thin, which is unſightly in a horſe, take the aſhes of fern four ounces, the ointment of marſh-mallows two ounces, a drachm of the oil of petroleum, and an ounce of the powder of birthwort-roots: waſh or anoint the place with them, mixed with a like quantity of oil and wine, adding thereto an ounce of the honey of roſes: and continue ſo to do for a month together: or, for want of theſe, you may waſh the horſe with a lye made of the aſhes of peaſe-ſtraw, wherein the green huſks of walnuts and red ſage have been concocted.

To take off hair, take ſoot of wood two ounces, oil of tartar two drachms, the caleſhe of egg-ſhells half an ounce, with an ounce of unſlaked lime: make them into a plaiſter with oil of ſpike, and apply it to the place you deſign to have bare or thinner; the hair at that time being cloſe clipped.

How to dye the hair of a horſe.

When you have a white horſe, or a horſe with white ſpots, and you are willing to conceal them for ſome time, take a pound of lime, a pound of gold litharge, a quartern of caſtile-ſoap cut ſmall; put the whole in a large pot, and pour in rain water, by little and little, till the lime heats and diſſolves; then add more water, and keep ſtirring it with a wooden ladle: when it comes to the conſiſtence of a clear pap, apply it nicely upon the hair, in the places you want to blacken; cover it with paper or a linen rag, and leave the horſe tied up for ſome hours till it becomes dry; then waſh the part with water and ſoap, and the more you waſh it the blacker it will appear. This may be done in any part where the hair grows, except the noſe, where the hair is very thin. You muſt take care however, that the compoſition does not come to the ſkin, for it would certainly fetch it off.

To paint the hair of the eye-brows of an old horſe.

Take two ounces of aqua-fortis, diſſolve in it half an ounce of leaf-ſilver, and add an ounce of roſe-water; lay on this compoſition delicately with a pencil on the eye-brows, and take great care that none of it gets into the eyes. If they are not ſtained the firſt time, you muſt repeat it as often as it dries, till it has the effect. If the horſe be bay, you muſt put into the compoſition an ounce of umber; if ſorrel, an ounce of litharge of gold.

To

To make hair grow again that is fallen off, whether through the itch, or a wound in what part ſoever it be:

Take ointment of poplar-buds and virgin honey, an equal quantity of each; mix them well together, and rub with this twice every day the places that are bare; continue this for fifteen or twenty days, in which time the hair will grow again, as thick and ſmooth as if it had never fallen off.

Another way.

Take the roots of flat ſedge, which grows upon the borders of ſtanding waters, and, having cleanſed them well, boil them in water to a pappy conſiſtence, and then add as much virgin-honey as you can conveniently mix with. Put ſome of this compoſition freſh every day upon the bald places, and then continue to do thus for fifteen or twenty days, and you will perceive the hair return.

HALBERT, is a ſmall piece of iron one inch broad, and three or four inches long, ſoldered to the toe of a horſe's ſhoe which jets out before, to hinder a lame horſe from reſting, or treading upon his toe.

The halbert ſhoes do of neceſſity conſtrain a lame horſe, when he goes at a moderate pace, to tread or reſt on the heel, which lengthens and draws out the back ſinew that was before in ſome meaſure ſhrunk.

HALLIER-NET OR BRAMBLE-NET, an oblong net to take quails, *&c.* *See Plates* VII. *and* XII. *See* BRAMBLE-NET.

HALTER FOR A HORSE, is a head-ſtall of *Hungary* leather, mounted with one, and ſometimes two ſtraps, with a ſecond throat-band, if the horſe is apt to unhalter himſelf.

HALTER CAST, is an excoriation of the paſtern, occaſioned by the halter being entangled about the foot upon the horſe's endeavouring to rub his neck with his hinder foot.

Unhalter; a horſe is ſaid to unhalter himſelf, that turns off the halter.

If your horſe is apt to unhalter himſelf, you muſt get him a halter with a throat-band.

Strap, or ſtring of a halter, is a cord or long ſtrap of leather made faſt to the head-ſtall, and to the manger, to tie the horſe.

Do not bridle your horſe till you ſee if he is halter caſt. *See* TRICK.

Halter caſt is thus: when a horſe endeavours to ſcrub the itching part of his body, near the head or neck, one of his hinder feet entangles in the halter, when by the violent ſtruggling of the horſe to diſengage himſelf, he ſometimes receives very dangerous hurts in the hollow of his paſtern.

For the cure of this, take linſeed oil and brandy, of each an equal quantity; ſhake them together in a glaſs till they are well mixt, and anoint the ſorance, morning and evening, firſt having clipt away the hair; but take care to keep the foot very clean.

Another eaſy remedy is, take oil and wine, of each an equal quantity; boil them together, till the wine is evaporated; and apply the remainder of the oil once a day to the part, which will be quickly healed.

HALTING [in a Horſe]. A limping, or going lame, an irregularity in the motion of an horſe ariſing from a lameneſs in the ſhoulder, leg, or foot, which makes him ſpare the part or uſe it timorouſly. Halting happens ſometimes before, and ſometimes behind; if it be before, the hurt muſt of neceſſity be in the ſhoulder, knee, flank, paſtern, or foot.

If it be in the ſhoulder, it muſt be towards the withers, or in the pitch of the ſhoulder, and may be known in that he will a little draw his leg after him, and not uſe it ſo nimbly as the other.

If he caſt it more outward than the other, it is a ſign of lameneſs, and that the grief lies in the ſhoulder: then take him in your hand and turn him ſhort, on either hand, and you will find him to complain of that ſhoulder he is lame of, and he will either favour that leg or trip in the turning: alſo lameneſs may be ſeen by him while ſtanding in the ſtable; where he will hold the lame leg out more than the other, and if when you are upon his back, he complains more than otherwiſe he does, the grief certainly lays in the withers; ſo that griping him hard you will perceive him to ſhrink, and perhaps offer to bite.

If he treads thick and ſhort before, then the grief is upon the pitch of the ſhoulder, cloſe to the breaſt, which may be diſcovered by ſetting the thumb, and preſſing it hard againſt the place, and thruſting him with it (if you would have him go back) upon which he will ſhrink, and put back his leg, foot and body: if the grief be in the elbow, it may be known by pinching him, with the fore fingers and thumb, and then he will hold up his leg and offer to bite.

But if the grief be in the knee, it may be diſcovered by the horſe's ſtiff going; for he will not bend it ſo nimbly as he does the other.

If it be in the flank, or ſhin-bone, the ſame may be ſeen or felt, it being a back ſinew, ſplinter, ſtrain, or the like.

If it be in the bending of the knee, it is a malander, which is alſo eaſily diſcovered.

Farther, when the paſtern, or joint, is affected, it may be known by his not bending it ſo well as the other: and if you put your hand upon the place, you will find it very hot.

If it be in the foot, it muſt be either in the coronet or ſole: if in the coronet, probably it comes by ſome ſtrain or wrench.

If in the hoof by ſome over-reach, or diſtemper in or about the fruſh.

If in the ſole from ſome prick, aceloy, nail, *&c.*

HAM } of a horſe, is the ply or bending of
HOUGH } the hind legs, and likewiſe comprehends the point behind, and oppoſite to the ply, called the hock.

The hams of a horſe ſhould be large, full, and not much bended; as alſo diſcharged of fleſh, nervous, ſupple, and dry, otherwiſe they will be ſubject to many imperfections, as the capelet, curb, jardon, ſelander, ſpavin, variſſe, veſſignon, *&c.*

HAMBLING.

HAMBLING } of Dogs, [in the foreſt law] is
HAMELING } the ſame as expediting or lawing; properly the hamſtringing, or cutting of dogs in the ham.

HAND, is a meaſure of a fiſt clinched, by which we compute the height of a horſe: the *French* call it *paume*, and had this expreſſion and meaſure firſt imparted to them from *Liege*.

A horſe of war ſhould be ſixteen hands high.

Hand: ſpear-hand, or ſword-hand, is the horſeman's right-hand.

Bridle-hand, is the left-hand of the horſeman. There are ſeveral expreſſions which relate to the bridle-hand, becauſe that gives motion to the bitt-mouth, and ſerves to guide the horſe much more than the other helps.

A horſeman ought to hold his bridle-hand two or three fingers above the pommel of the ſaddle.

This horſeman has no hand; that is, he does not make uſe of the bridle but unſeaſonably, and does not know how to give the aids or helps of the hand with due nicety.

To keep a horſe upon the hand, is to feel him in the ſtay upon the hand, and to be prepared to avoid any ſurpriſal or diſappointment from the horſe.

A horſe is ſaid to be, or reſt, upon the hand, that never refuſes, but always obeys and anſwers the effects of the hand.

To make a horſe right upon the hand, and free in the ſtay, he might be taught to know the hand by degrees and gentle methods; the horſeman muſt turn him, or change hands, ſtop him, and manage with dexterity the *appui*, or preſſure of his mouth, ſo as to make him ſuffer chearfully and freely the effect of the bitt-mouth, without reſiſting, or reſting heavy upon the hand.

The ſhort, or hand-gallop, teaches horſes to be right upon the hand.

A light hand. A good horſeman ought to have a light hand; that is, he ought only to feel the horſe upon his hand, in order to reſiſt him when he attempts to ſlip from it; he ought, inſtead of cleaving to the bridle, lower it as ſoon as he has made his reſiſtance.

If a horſe, through an over-bearing eagerneſs to go forward, preſſes too much upon the hand, you ought to ſlack your hand at certain times, and keep a hard hand at other times, and ſo diſappoint the horſe of preſſing continually upon the bitt.

Now this facility or liberty in the horſeman of ſlacking and ſtiffening the hand, is what we call a good hand.

To ſlack, or eaſe the hand, is to ſlacken the bridle.

To hold up, or ſuſtain the hand, is to pull the bridle in.

To guide a horſe by the hand, is to turn or change hands upon one tread.

A horſe is ſaid to force the hand when he does not fear the bridle, but runs away in ſpite of the horſeman.

To make a horſe part from the hand, or ſuffer him to ſlip from the hand, is to put on at full ſpeed.

To make a horſe part right from the hand, he ſhould not put himſelf upon his back or reins, but bring down his hips.

All hands. A horſe that turns upon all hands upon a walk, trot, or gallop.

To work a horſe upon the hand, is to manage him by the effect of the bridle, without interpoſing any other helps, excepting thoſe of the calves of the legs, upon occaſion.

Fore-hand and hind-hand of a horſe, is an expreſſion diſtinguiſhing the parts of a horſe, as divided into the fore and hind parts, by the ſituation of a horſeman's hand.

The parts of the fore-hand, are the head and neck, and the fore-quarters.

Thoſe of the hind-hand, include all the other parts of his body.

HAND-HIGH, is a term uſed in horſemanſhip, and peculiar to the *Engliſh* nation, who meaſure the height or tallneſs of a horſe by hands, beginning with the heel, and meaſuring upwards to the higheſt hair upon the withers. A hand is four inches.

HANDLING, [with cock-fighters] a term that ſignifies the meaſuring the girth of them, which is done by griping one's hand and fingers about the cock's body.

HAQUENEE, an obſolete *French* word for an amble horſe.

To HARBOUR, [hunting term] a hart is ſaid to harbour when he goes to reſt; and to unharbour a deer, is to diſlodge him.

HARD Horse, is one that is inſenſible of whip or ſpur.

HARE, is a beaſt of venery, or the foreſt; peculiarly ſo termed in the ſecond year of her age; in the firſt ſhe is called a leveret; and in the third a great hare. By old foreſters the hare is called the king of all beaſts of venery.

There are four ſorts of hares; ſome live in the mountains, ſome in the fields, ſome in marſhes, and ſome every where without any certain place of abode. The mountain hares are the ſwifteſt; the field hares are not ſo nimble; and thoſe of the marſhes are the ſloweſt; but the wandering hares are the moſt dangerous to follow, for they are ſo cunning in the ways and mazes of the fields, running up the hills and rocks, becauſe by cuſtom they know a nearer way; with other tricks, to the confuſion of the dogs, and diſcouragement of the hunters.

It will not be improper to give a deſcription of the parts of a hare, ſince it is admirable to behold how every limb and member of this beaſt is compoſed for celerity.

In the firſt place the head is round, nimble, ſhort, yet of convenient length, and apt to turn every way.

The ears are long and lofty, like thoſe of an aſs; for nature has ſo provided, that every fearful and unarmed creature ſhould have long and large ears, that by hearing it might evade its enemies, and ſave itſelf by flight: the lips continually move, while they are aſleep as well

as awake; and from the ſlit they have in the middle of their noſe comes the name of hare-lip, found in ſome men.

The neck of a hare is long, ſmall, round, ſoft and flexible; the ſhoulder-bone ſtraight and broad, for her more eaſy turning; her legs before ſoft, and ſtand broader behind than before, and the hinder legs longer than the fore legs: the breaſt is not narrow, but fitted to take more breath than any other beaſt of that bigneſs: it has a nimble back and a fleſhy belly, tender loins, hollow ſides, fat buttocks filled up, and ſtrong and nervous knees. Their eyes are brown, and they are ſubtle, but not bold; ſeldom looking forward, becauſe they go by leaps: their eye-lids coming from their brows, are too ſhort to cover their eyes, ſo that when they ſleep they remain open.

They have certain little bladders in their belly, filled with matter, out of which both ſexes ſuck a certain humour and anoint their bodies all over with, by which they are defended againſt rain.

Though their ſight is dim, yet they have an indefatigable faculty of ſeeing; ſo that the continuance of it, though but in a mean degree, makes amends for the want of the excellency of it in them.

They feed abroad, becauſe they would conceal their forms, and never drink, but content themſelves with dew, which makes them frequently grow rotten.

As it is ſaid before, every limb of a hare is compoſed for ſwiftneſs, and therefore ſhe never walks or treads, but jumps; her ears lead her the way in the chaſe, for with one of them ſhe harkeneth to the cry of the dogs; and the other ſhe ſtretches forth like a ſail, to help on her courſe: always ſtretching her hinder beyond her former, and yet not hindering them at all; and in paths and highways ſhe runs more ſpeedily.

The hares of the mountains often exerciſe themſelves in the vallies and plains, and through practice grow acquainted with the neareſt way to their forms, or conſtant places of abode; ſo that when at any time they are hunted in the fields, ſuch is their ſubtil dodging, that they will dally with the huntſman till they ſeem to be almoſt taken, and then on a ſudden take the neareſt way to the mountains, and ſo take ſanctuary in the inacceſſible places, to which neither dogs nor horſes can or dare aſcend.

Hares which frequent buſhes and brakes are not able to endure labour, nor are very ſwift, becauſe of the pain in their feet, growing fat by means of idleneſs, and not uſing themſelves to running.

The field hare, being leaner of body, and oftener chaſed, is more difficultly taken by reaſon of her ſingular agility; for when ſhe begins her courſe, ſhe bounds up from the ground as if ſhe flew, afterwards paſſes through brambles, over thick buſhes and hedges, with all expedition; and if ſhe cometh into deep graſs or corn, ſhe eaſily delivers herſelf and ſlides through it, always holding up one ear, and bending it at pleaſure, to be the moderator of her chaſe.

Neither is ſhe ſo improvident and prodigal of her ſtrength, as to ſpend it all in one courſe, but ſhe has regard to the force of her purſuer, who if he be ſlow and ſluggiſh, ſhe is not profuſe of her ſtrength, nor uſes her utmoſt ſwiftneſs, but only advances gently before the dogs, yet ſafely from their clutches, reſerving her greateſt ſtrength for the time of her greateſt neceſſity, knowing ſhe can out-run the dogs at her pleaſure, and therefore will not ſtrain herſelf more than ſhe is urged.

But if ſhe be purſued by a dog that is ſwifter than the reſt, then ſhe puts on with all the force ſhe can, and having once left the hunters and dogs a great way behind her, ſhe makes to ſome little hill, or riſing ground, where ſhe raiſes herſelf upon her hinder legs, that thereby ſhe may obſerve how far off, or how near her purſuers are.

The younger hares, by reaſon of their weak limbs, tread heavier on the earth than the older, and therefore leave the greater ſcent behind them.

At a year old they run very ſwiftly, and their ſcent is ſtronger in the woods than in the plain fields; and if they lie down on the earth (as they love to do) in red fallow grounds, they are eaſily deſcried.

Their footſteps in winter are more apparent than in ſummer, becauſe as the nights are longer, they travel further; neither do they ſcent in winter mornings ſo ſoon as it is day, till the froſt is a little thawed; but eſpecially their footſteps are uncertain at the full of the moon, for then they leap and play together, ſcattering or putting out their ſcent or ſavour; and in the ſpring-time alſo, when they do engender, they confound one another's footſteps by multitudes.

Hares and rabbets are miſchievous to nurſeries and newly planted orchards, by peeling off the bark of the plants; for the prevention of which ſome bind ropes about the trees to a ſufficient height; others daub them with tar, which being of itſelf hurtful to young plants, the miſchief is prevented by mixing it with any kind of greaſe, and boiling it over a fire, ſo as both may incorporate; then with a bruſh or little broom, daub over the ſtem of the tree as high as a rabbet or hare can reach; do this in *November*, and it will ſecure the trees for that whole year, it being the winter-time only in which they feed upon the bark.

Alſo ſome thin ſtuff out of a houſe of office, or the thick tempered with water, has been often applied with good ſucceſs; or the white-waſh made uſe of by plaiſterers for whitening houſes, done once a year over the trees with a bruſh, will preſerve them from hares, deer, and other animals.

As for ſuch hares as are bred in warrens, the warreners have a crafty device to fatten them, which has been found by experience to be effectual; and that is, by putting wax into their ears to make them deaf, and then turning them into the place where they are to feed, where, being freed from the fear of hounds, and for want of hearing, they grow fat before others of their kind.

Hare Hunting.

It is generally believed that a hare naturally knows the change of weather, from one twenty-four hours to another.

When ſhe goes to her form, ſhe will ſuffer the dew

to

to touch her as little as ſhe can, but takes the highways and beaten paths: again, when ſhe riſes out of her form, if ſhe couches her ears and ſcut, and runs not very faſt at firſt, it is an infallible ſign that ſhe is old and crafty.

They go to buck commonly in *January*, *February*, and *March*, and ſometimes all the warm months: ſometimes ſeeking the buck at ſeven or eight miles diſtant from the place they uſually ſit at, following the highways, *&c.*

To diſtinguiſh a male hare from the female, you may know him as you hunt him to his form, by his beating the hard highways: he alſo feeds further out in the plains, and makes his doublings and croſſings much wider, and of greater compaſs than the female doth; whereas the female will keep cloſe by ſome covert ſide, turning and winding in the buſhes like a coney; and if ſhe go to relief in the corn fields, ſhe ſeldom croſſes over the furrows, but follows them along, ſtaying upon the thickeſt tufts of corn to feed.

You may likewiſe know a buck at his riſing out of his form, by his hinder parts, which are more upon the whitiſh, and his ſhoulders, before he riſes will be redder than the doe's, having ſome looſe long hairs growing on them.

Again, his head is ſhorter and better truſſed, his hair about his lips longer, and his ears ſhorter and more grey: the hairs upon the female's chine are of a blackiſh grey.

And beſides, when hounds hunt a female hare, ſhe will uſe more croſſing and doubling, ſeldom making out end-ways before the hounds; whereas the male acts contrarily, for having once made a turn or two about his form, then farewell hounds, for he will frequently lead them five or ſix miles before ever he will turn his head.

When you ſee that your hounds have found where a hare hath paſſed to relief upon the highway-ſide, and hath much doubled and croſſed upon dry places, and never much broken out nor relieved in the corn, it is a ſign ſhe is but lately come thither: and then commonly ſhe will ſtay upon ſome high place to look about her, and to chuſe out a place to form in, which ſhe will be loath to part with. As of all chaſes the hare makes the greateſt paſtime and pleaſure, ſo it is a great delight and ſatisfaction to ſee the craft of this ſmall animal for her ſelf-preſervation.

And the better to underſtand them, conſider what weather it is: if it be rainy, then the hare will hold the highways more than at any other time, and if ſhe come to the ſide of any young grove or ſpring, ſhe will ſcarcely enter, but ſquat down by the ſide of it till the hounds have over-ſhot her, and then ſhe will return, the very ſame way ſhe came, to the place from whence ſhe was ſtarted, and will not go by the way into any covert, for fear of the wet and dew that hangs upon the boughs.

In this caſe the huntſman ought to ſtay a hundred paces before he comes to the wood ſide, by which means he will perceive whether ſhe return as aforeſaid, which if ſhe do, he muſt halloo in his hounds, and call them back, and that preſently, that the hounds may not think it the counter ſhe came firſt.

The next thing that is to be obſerved is, the place where the hare ſits, and upon what wind ſhe makes her form, either upon the north or ſouth wind; ſhe will not willingly run into the wind, but upon a ſide, or down the wind; but if ſhe form in the water it is a ſign ſhe is foul and meaſled: if you hunt ſuch a one, have a ſpecial regard all the day to the brook-ſides, for there, and near plaſhes, ſhe will make all her croſſings, doublings, &c.

Some hares have been ſo crafty, that as ſoon as they have heard the ſound of a horn, they would inſtantly ſtart out of their form, though it was at the diſtance of a quarter of a mile, and go and ſwim in ſome pool, and reſt upon ſomeruſh-bed in the midſt of it; and would not ſtir from thence till they have heard the horn again, and then have ſtarted out again, ſwimming to land, and have ſtood up before the hounds four hours before they could kill them, ſwimming and uſing all ſubtleties and croſſings in the water.

Nay, ſuch is the natural craft and ſubtlety of a hare, that ſometimes, after ſhe has been hunted three hours, ſhe will ſtart a freſh hare, and ſquat in the ſame form.

Others having been hunted a conſiderable time, will creep under the door of a ſheep-cot, and there hide themſelves among the ſheep; or when they have been hard hunted, will run in among a flock of ſheep, and will by no means be gotten out from among them till the hounds are coupled up and the ſheep driven into their pens.

Some of them (and that ſeems ſomewhat ſtrange) will take the ground like a coney, and that is called going to the vault.

Some hares will go up one ſide of the hedge and come down the other, the thickneſs of the hedge being the only diſtance between the courſes.

A hare that has been cloſely hunted, has got upon a quick-ſet hedge, and ran a good way upon the top thereof, and then leaped off upon the ground.

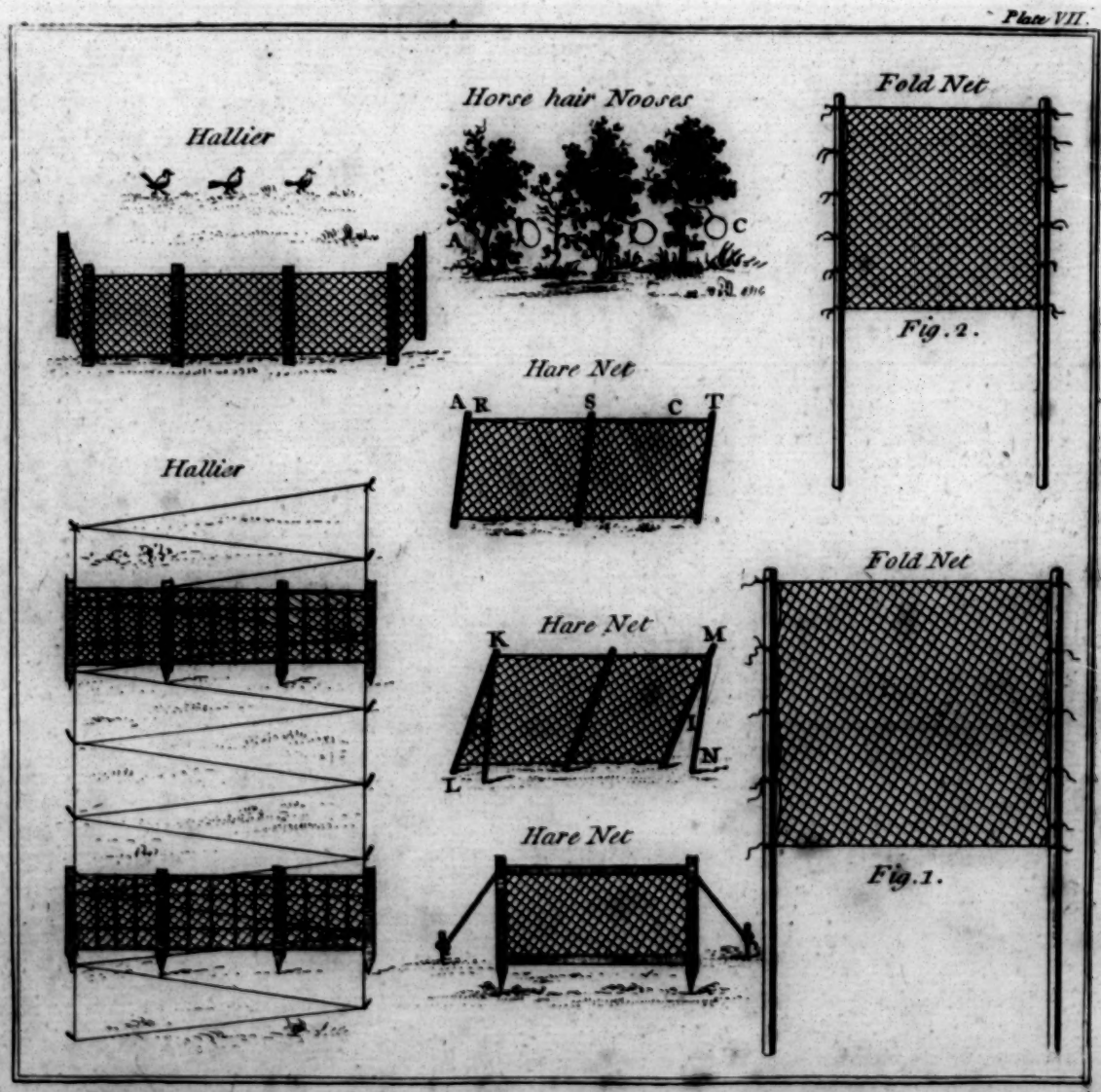
And they will frequently betake themſelves to furze-buſhes, and will leap from one to the other, whereby the hounds are frequently in default.

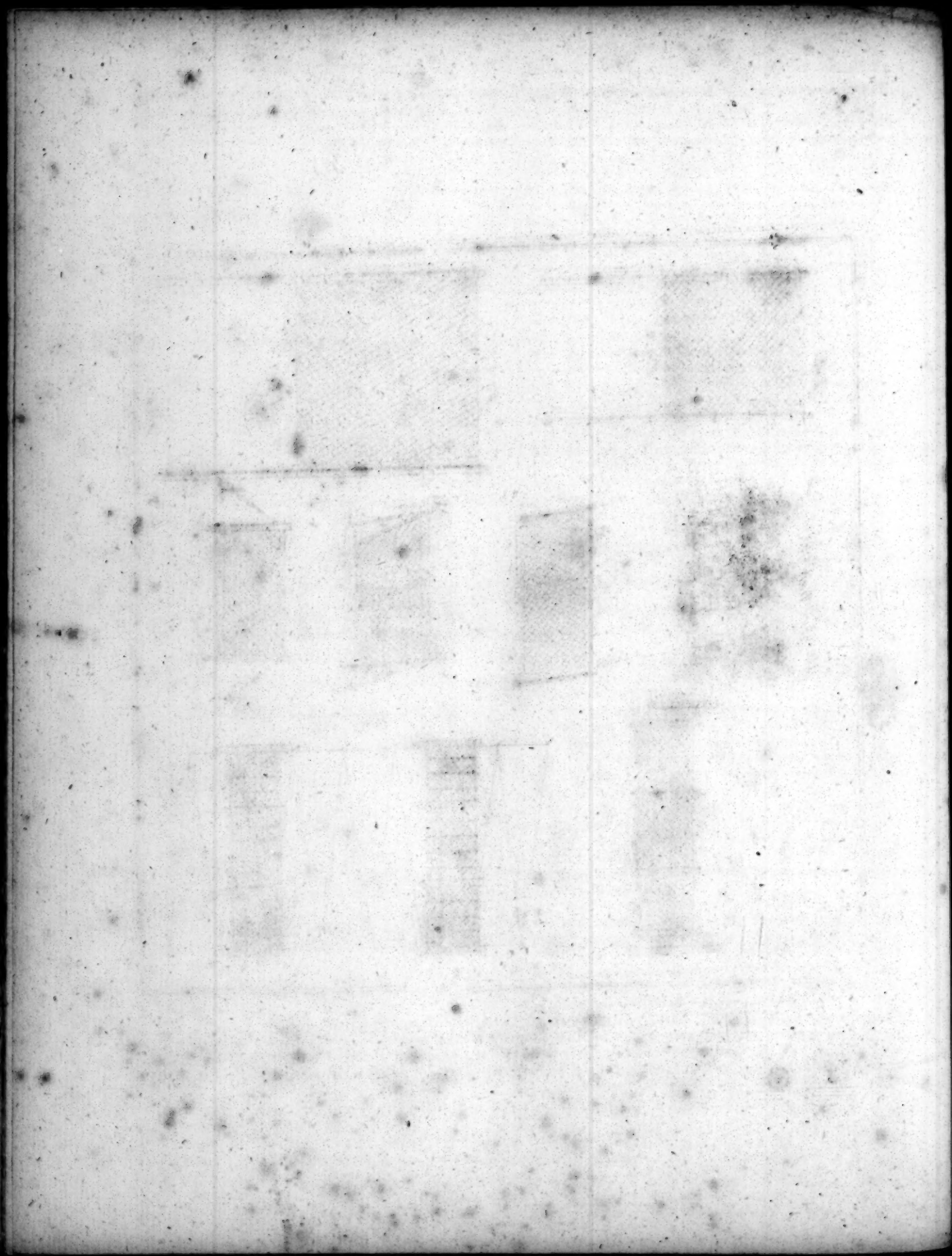
Some affirm, that a hare, after ſhe has been hunted two hours and more, has at length, to ſave herſelf, got upon an old wall, ſix feet high from the ground, and hid herſelf in a hole that was made for ſcaffolding; and that ſome hares have ſwam over the rivers *Trent* and *Severn*.

A hare is ſuppoſed not to live above ſeven years at the moſt, eſpecially the bucks, and if a buck and doe ſhall keep one quarter together, they will never ſuffer any ſtrange hare to ſit by them, and therefore it is ſaid by way of proverb, the more you hunt, the more hares you ſhall have; becauſe when you have killed one hare, another will come and poſſeſs his form.

A hare hath a greater ſcent, and is more eagerly hunted by the hounds, when ſhe feeds and relieves upon green corn, than at any other time of the year; and yet there are ſome hares that naturally give a greater ſcent than

Plate VII.


Hallier
Horse hair Nooses
A
C
Fold Net
Fig. 2.
Hare Net
A R S C T
Hallier
Fold Net
Hare Net
K
M
N
L
Hare Net
Fig. 1.



than others, as the large wood-hares; and ſuch as are foul and meaſled keep near the waters: but the ſmall red hare, which is not much bigger than a coney, is neither of ſo ſtrong a ſcent, nor ſo eagerly hunted.

Thoſe hares that feed upon the ſmall branches of wild thyme, or ſuch like herbs, are generally very ſwift, and will ſtand long up before the hounds.

Again, there are ſome hares more ſubtle and cunning than others: young hares which have never been hunted are fooliſh, and are neither of force nor capacity to uſe ſuch ſubtleties and craftſ, but moſt commonly hold on end-ways before the hounds, and oftentimes ſquat and ſtart again, which greatly encourages the hounds, and enters them better than if the hare ſhould fly end-ways, as ſometimes they will for five or ſix miles an end.

The females are more crafty and politic than the males, for they double and turn ſhorter, which is unpleaſant to the hounds; for it is troubleſome to them to turn ſo often, delighting more in an end-way chaſe, running with all their force: for thoſe hares which double and croſs ſo often, it is requiſite at default, to caſt the greater compaſs about, when you beat, to make it out, for ſo you will find all her ſubtleties, and yet need not ſtick upon any of them, but only where ſhe went on forward; by this means you will abate her force, and compel her to uſe doublings and croſſings.

To enter hounds to a hare, let the huntſman be ſure in the firſt place to make them very well acquainted with himſelf and his voice, and let them underſtand the horn, which he ſhould never blow but when there is cauſe for it.

When you enter a young kennel of hounds, have a ſpecial regard to the country where you make the firſt quarry, for ſo they are like to ſucceed accordingly; ſince their being entered firſt in a plain and champagne country, will make them ever after delight more to hunt therein than elſewhere; and it is the ſame with the coverts.

In order to have the beſt hounds, uſe them to all kinds of hunting, yet do not oblige them to hunt in the morning, by reaſon of the dew and moiſture of the earth; and beſides, if they be afterwards hunted in the heat of the day, they will ſoon give over the chaſe, neither will they call on willingly nor chearfully, but ſeek out the ſhades to ſleep in.

But yet many are of opinion, that to hunt both early and late in the morning, by trayling, profits the hounds as to the uſe of their noſes; and by keeping them ſometimes in the heat of the day, or till night, incites courage in them.

The beſt ſeaſon to enter young hounds, is in *September* and *October*, for then the weather is temperate, and neither too hot nor too cold; and this is the ſeaſon to find young hares that have never been hunted, which are ſilly and ignorant of the politic croſſings, doublings, &c. of their ſires, running commonly end-ways, frequently ſquatting, and as often ſtarting; by which encouragement the hounds are the better entered.

Some hares hold the high-beaten ways only, where the hounds can have no ſcent; therefore, when the huntſman finds his hounds at a default in the highway, let him hunt on until he finds where the hare hath broken from the highway, or hath found ſome dale or freſh place where the hounds may recover ſcent, looking narrowly on the ground as he goes, to ſee to find the footing or pricking of the hare.

There are other places wherein a hound can find no ſcent; and that is, in fat and rotten ground, which ſticks to the feet of the hare; and this is called carrying, and ſo of conſequence ſhe leaves no ſcent behind her.

There are alſo certain months in the year in which a hound can find no ſcent, and that is in the ſpring time, by reaſon of the fragrant ſcent of flowers and the like.

But avoid hunting in hard froſty weather as much as you can, for that will be apt to furbate or founder your hounds, and cauſe them to loſe their claws; beſides, at that time a hare runs better than at ony other time, the ſoles of their feet being hairy.

In a word, the beſt way of entering young hounds, is with the aſſiſtance of old ſtaunch hounds, ſo they will be better learned to caſt for it at a doubling or default.

What time of the year is beſt for Hare-hunting; how to find her, ſtart her, and chaſe her.

The beſt time to begin hare-hunting, is about the middle of *September*, and to end towards the latter end of *February*, leſt you deſtroy the early brood of leverets.

And beſides when the winter comes on, the moiſtneſs and coolneſs of the earth increaſes, which is agreeable to the natnre of the hounds, and very acceptable, they not liking extremes either of hot or cold weather.

Thoſe hounds that are two years old and upwards, may be exerciſed three times a week; and the hunting ſo often will do them good, provided they will be fed; and they may be kept the greateſt part of the day, both to try their ſtoutneſs, and to make them ſtout.

If any hound ſhall have found the trayl of a hare, when ſhe hath relieved that night, the huntſman ought not to be too haſty, but let the hounds make it of themſelves: and when he perceives that they begin to draw in together, and to call on freſhly, then he ought to encourage them, eſpecially that hound which hunteth beſt, frequently calling him by his name.

Here you may take notice that a hare leaveth better ſcent when ſhe goes to relief, than when ſhe goeth toward her form; for when ſhe relieves in the field, ſhe coucheth her body low upon the ground, paſſing often over one piece of ground, to find where the beſt food lies, and thus leaveth the beſt ſcent, croſſing alſo ſometimes: beſides, when ſhe goes to her form, ſhe commonly takes the highways, doubling, croſſing, and leaping as lightly as ſhe can; in which places the hounds can have no ſcent by reaſon of the duſt, *&c.* and yet they will ſquat by the ſides of highways, and therefore let the huntſman beat very well the ſides of thoſe highways.

Now having found where a hare hath relieved in

ſome paſture or corn-field, you muſt then conſider the ſeaſon of the year, and what weather it is: for if it be in the ſpring time or ſummer, a hare will not then ſit in buſhes, becauſe they are frequently infeſted with piſmires, ſnakes and adders; but will ſit in corn-fields and open places.

In the winter time, they ſit near towns and villages, in tufts of thorns and brambles, eſpecially when the wind is northerly or ſoutherly.

According to the ſeaſon and nature of the place where the hare is accuſtomed to ſit, there beat with your hounds, and ſtart her; which is much better ſport than trayling of her from her relief to her form.

After the hare has been ſtarted, and is on foot, then ſtep in where you ſaw her paſs, and halloo in your hounds, until they have all undertaken it, and go on with it in full cry; then recheat to them with your horn, following fair and ſoftly at firſt, making not too much noiſe either with horn or voice; for at the firſt, hounds are apt to overſhoot the chaſe through too much heat.

But when they have run a ſpace of an hour, and you ſee the hounds are well in with it, and ſtick well upon it, then you may come in nearer with the hounds, becauſe by that time their heat will be cooled, and they will hunt more ſoberly.

But, above all things, mark the firſt doubling, which muſt be your direction for the whole day; for all the doubling that ſhe ſhall make afterwards will be like the former, and according to the policies that you ſhall ſee her uſe, and the place where you hunt, you muſt make your compaſſes great or little, long or ſhort, to help the defaults, always ſeeking the moiſteſt and moſt commodious places for the hounds to ſcent in.

To conclude; thoſe who delight in hunting the hare, muſt riſe early, leſt they be deprived of the ſcent of her footſteps, by which means the dogs will be incapacitated to follow their game; for the nature of the ſcent is ſuch that it will not remain long, but ſuddenly, in a manner every hour, vaniſhes away. *See* HUNTING.

HARE-NETS AND RABBET-NETS. The three ſeveral ſorts of nets repreſented in Plate VIII, are proper either for hares or rabbets.

In the placing of theſe obſerve the path or tract in any coppice, or furrow, by which any hare uſes to paſs; likewiſe how the wind is, ſo as to ſet them as the hare and wind may come together: if the wind be ſide-ways it will do well enough, but never let it blow over the net into the hare's face, for he will ſcent both it and you at a diſtance; the two pointed lines A C, in the firſt figure, denote the foot-paths whereby the game uſes to paſs. Then prepare three or four more ſtakes according to the length of the net; which ſtakes ſhould be about the bigneſs of one's thumb, and near four feet long, ſharpened at the greater end, and a little crooked at the ſmaller R, S, T; ſtick them in the ground ſomewhat ſloping, as if ſo forced by the wind: two of them are to be ſet at the two ſides of the way and the middle, as there is occaſion; they muſt only hold up the net from falling, but in a very ſlight manner, that if the game run againſt it, it may fall down, and ſo entangle him: be ſure to hide yourſelf in ſome ditch or buſh, behind a tree, or the like place, behind the net, then when you perceive the game to be paſſed give a ſhout, flinging your hat at them, which will put them into ſuch a ſurprize that they will ſpring on, and run juſt into the net, ſo that you muſt be nimble to take them, leſt they break out and eſcape.

But obſerve, this net is not ſo grounded in windy weather as in fair.

The middlemoſt flap muſt be ſet much after the ſame manner as the former; as to the way and wind, you ſee how the two cords at each end of the net ought to be diſpoſed: next you muſt have two ſticks, K, L, M, N, each four feet long and twice as thick as one's thumb, which are to be cut exactly ſmooth at each end and fixed thus, take the ſtick H, I, put it on the edge of the way upon the cord L, which is on the bottom of the net, and the other cord is to be placed at the top of the ſtick; then go along behind the net, ſupporting it with your hand, and place your ſecond ſtick juſt as you did the firſt; but you ſhould endeavour to lean a little towards the way where you expect the game will come, for the beaſt's running fiercely againſt the net will force the ſticks to give way, and ſo the net falls on him.

There is another net repreſented by the laſt figure, which is leſs troubleſome than either of the former, only it may be farther diſcerned, yet it is good for rabbets in ſuch foot-paths, and only uſed for them and hares; whereas the others are uſeful alſo for the taking of wolves, foxes, badgers, and pole cats. The true time to ſet theſe nets is at break of day, till half an hour before ſun-riſing, and from half an hour before ſun-ſet till dark.

HARNESS GALLS; ſometimes the breaſts of coach-horſes are galled by the harneſs, or riſe in hard bunches, eſpecially in rainy weather.

To cure this, firſt ſhave off the hair about the ſore very cloſe, and rub the whole breaſt with a lather of water and black ſoap; then waſh that part of the breaſt which is uſually covered with the petrel, with ſalt, and water, ſuffering it to dry off itſelf.

If the hardneſs of any part of the harneſs occaſions the galling, take it away, or cover it with little bolſters.

HARRIER; a hound, which from his chaſing or tracing by foot, is naturally endued with an admirable gift of ſmelling, being alſo bold and courageous in the purſuit of his game, of which there are ſeveral kinds, and all differ in their ſervices; ſome are for the hare, the fox, wolf, hart, pole-cat, weaſel, coney, buck, badger, otter, *&c.* ſome for one thing, ſome for another.

The hound moſt in uſe and proper for hare-hunting, may be confined to few ſorts and each excellent in nature. To wit, the deep-tongued, thick lipped, broad and long-hung ſouthern hounds. The fleet ſharp noſed dog, ears narrow and pointed, deep cheſted, with thin ſhoulders, protending a quarter of the fox ſtrain. The rough

rough wire-haired hound, thick-quartered, well hung, not too fleſhy ſhouldered, together with the rough or ſmooth beagle. Each of theſe ſorts, have their excellencies, *&c.* It is not poſſible, with juſtice, to commend one before another, for kind, colour or ſervice, preference being given according to the humours and inclinations of ſportſmen, the tribe of whom are very numerous, and, of conſequence, different in opinion.

He that delights in a long chaſe of ſix hours, often more, and to be in with the dogs all the time, let him breed of the ſouthern hounds, or ſuch heavy dogs as *Suſſex* gentlemen run in the weald. They make good deep baſs muſic, afford great diverſion, and conſidering how dirty the country is, fatigue the healthy ſootmen very little. In an open country where there is good riding, prefer the ſecond ſort, with a quarter of the fox-ſtrain, theſe ſuit the more eager, active horſeman, and ſpend their tongues generouſly, making delightful harmony, and at the ſame time go at ſuch a rate, a hare durſt not play many tricks before them; they ſeldom allow her time to loiter, ſhe muſt run and continue her ſoiling or change ſoil, if the latter ſhe dies; keep in huntſman, freſh ground on the turf, is in ſome degree a continued view, otherwiſe hang your dogs (barring all extraordinary accidents of highways and ſheep blemiſh) for I would no more excuſe the loſs of a hare on freſh ſward, unleſs the huntſman's fault, which is too often the caſe, than I would a kennel of fox-hounds loſing reynard in full chaſe; the reaſons againſt it in both diverſions are the ſame.

The ſlow hounds generally pack beſt. Of the ſecond ſort, many not being of equal ſpeed (for it is hard to procure an even kennel of faſt hounds) will be found to tail, which is an inconveniency, for the hind dogs labour on to overtake the leading hounds, and ſeldom or ever ſtop, nor are of the leaſt uſe but to enlarge the cry, unleſs at an over-run, which happens at the top of the morn, for a quarter of a mile together, then the old hounds, thrown out or tailed, often come up, and hit the fault off. The ſouthern dogs are not ſo guilty of running a-head, for as they pack well together, from their equality of ſpeed (it being eaſier to excel the ſlow than the faſt) at the leaſt balk, there are ten noſes on the ground for one. The third ſpecies of hound you will ſeldom ſee an entire kennel of, being in ſome parts not much encouraged: They are of northern breed, and in great eſteem, being bold dogs, and by many huntſmen preferred for the otter and martin: in ſome places they are encouraged for fox hounds, but bad to breed from, being too ſubject to degenerate and produce thick, low, heavy ſhouldered dogs unfit for the chaſe. Beagles, rough or ſmooth, have their admirers, they ſpend their tongues free in treble or tenor, and go a greater rate than the ſouthern hounds, but tail abominably. They run low to ground, therefore enjoy the ſcent better than taller dogs, eſpecially when the atmoſphere lies low. In an incloſed country they do beſt, as they muſe with the hare, and at trailing or default, are pretty good for hedge-rows.

Of the two ſorts the rough, or wire-haired, being generally good ſhouldered dogs, and well filleted, are preferred.

Smooth-haired beagles are commonly deep-hung, thick-lipped, and large noſtrilled, but often ſo ſoft, ſolid, and bad quartered, as to be ſhoulder-ſhook and crippled the firſt ſeaſon's hunt, and have frequently that unpardonable fault of crooked legs, like the terrier, or right Bath turn-ſpit.

Few of them will endure a tolerable hunt, or at default bear hard charging. After two hours running, obſerve them crippled and down, the huntſman may go on himſelf, for what aſſiſtance many of them give him, and it is plain from their form and ſhape, that they are not deſigned for hard exerciſe.

So much for harriers, a deal may be ſaid for and againſt the ſeveral kinds: it is a wide unſettled point to give opinion upon; but to ſum up the whole in a few words, ſtaunch, true hounds of any ſort, are deſirable, and whoever has them of pretty equal age and ſpeed, with the requiſites of packing and hunting well together, whether ſouthern, northern, fox-ſtrain, or beagle, can boaſt an invaluable advantage in the diverſion, and which few gentlemen, let them breed ever ſo true, can attain to but in years.

The properties to be conſidered in the choice of a hound, are, to prefer the dog of a middling ſize, with his back longer than round, noſe large, with noſtrils bold and wide, cheſt deep and capacious, fillets great and high, haunches large, hams ſtraight, the ſole hard and dry, claws large, ears wide, thin and deep, more round than ſharp, eyes large and protuberant, forehead prominent, and upper lips thick, and deeper than the lower jaw.

HART, is the moſt noble and ſtately beaſt, and in the firſt year is called a hind-calf, in the ſecond a knobber, in the third a brock, in the fourth a ſtaggard, in the fifth a ſtag, and in the ſixth a hart. *See* STAG.

Harts are bred in moſt countries, but the ancients preferred thoſe of *Britain* before all others, where they are of divers colours.

Theſe excel all others in the beauty of their horns, which are very high, yet do not grow to their bones or ſcalps, but to their ſkin, branching forth into many ſpears, being ſolid throughout, and as hard as ſtones, and fall off once a year.

But if they remain abroad in the air, and are ſometimes wet and ſometimes dry, they grow light; by which it would ſeem they are of an earthy ſubſtance, concrete, and hardened with a ſtrong heat, made like unto bones.

They loſe their horns every year in the ſpring.

At one year old they have nothing but bunches, that are ſmall ſignificators of horns to come: at two years they appear more perfectly, but ſtraight and ſingle: at three years they grow into two ſpars; at four into three, and ſo increaſe every year in their branches till they are ſix; and above that time their age is not certainly to be known by the head.

Having loſt their horns, in the day-time they hide themſelves, inhabiting the ſhades to avoid the annoy-

ance of flies, and feed, during that time, only in the night.

Their new horns come out at firſt like bunches, and afterwards (as has been ſaid before) by the increaſe of the ſun's heat they grow more hard, covered with a rough ſkin, which is called a velvet head; and as that ſkin drieth, they daily try the ſtrength of their new heads upon trees, which not only ſcrapeth off the roughneſs, but by the pain they feel thus rubbing, they are taught how long to forbear the company of their fellows; for at laſt, when in their chafing and fretting of their new horns againſt the trees, they can feel no longer pain and ſmart in them, they ſeem as if they thought it were high time to forſake their ſolitary dwellings, and return again to their former condition.

The reaſon why harts and deers ſhed their horns annually are theſe:

Firſt, becauſe of the matter of which they conſiſt; for it is dry and earthy like the ſubſtance of green leaves, which alſo fall annually; likewiſe wanting glewy or holding moiſture, for which reaſon the horn of a hart cannot be bent.

Secondly, from the place they grow up on, for they are not rooted upon the ſkull, but only within the ſkin.

Thirdly, from the efficient cauſe; for they are hardened both with the heat of ſummer and cold of winter; by means of which the pores which ſhould receive the nouriſhing liquor are ſhut up and ſtopped, ſo that their native heat neceſſarily dieth; which does not ſo happen in other beaſts, whoſe horns are for the moſt part hollow and fitted for long continuance; but the new bunches ſwelling up, towards the ſpring, thruſt off the old horns, having the aſſiſtance of boughs of trees, weight of the horns, or by the willing excurſion of the beaſt that beareth them.

It has been obſerved, that when a hart pricketh up his ears, he windeth ſharp, very far and ſure, and diſcovereth all treachery againſt him; but if they hang down and wag, he perceives no danger.

Their age is diſcerned by their teeth; they have four on both ſides, with which they grind their meat; beſides two others, which are much larger in the male than in the female.

All theſe beaſts have worms in their heads underneath their tongues, in a hollow place where the neck-bone is joined to the head, which are no bigger than fly-blows.

The blood of the hart is not like that of other beaſts, for it hath no fibres in it, and therefore it does not congeal.

His heart is very great, and ſo are all thoſe of fearful beaſts, having in it a bone like a croſs.

He hath no gall, and that is one of the cauſes of his long life, and therefore are his bowels ſo bitter, that the dogs will not touch them unleſs they be very fat.

The genital part of a hart is all nervous; the tail ſmall; and a hind hath udders between her thighs, with four ſpeans like a cow.

Theſe are above all other beaſts both ingenious and fearful, who although they have large horns, yet their defence againſt other four-footed beaſts is to run away.

The hart is ſtrangely amazed, when he hears any one call or whiſtle in his fiſt: for trial of which, ſome ſeeing a hart in the plain in motion, having called him, crying ware, ware, take heed; and thereupon have ſeen him inſtantly turn back, making ſome little ſtand.

He hears very perfectly when his head and ears are erected; but imperfectly when he lets them down.

When he is on foot, and not afraid, he admires every thing he ſees, and takes a pleaſure to gaze at them.

A hart can naturally ſwim a great way, ſo that ſome which have been hunted in foreſts near the ſea, have plunged into it, and have been killed by fiſhermen twelve miles from land.

It is reported of them, that when they go to rut, and for that purpoſe are obliged to croſs ſome great river or arm of the ſea, they aſſemble in great herds, the ſtrongeſt going in firſt, and the next in ſtrength following him, and ſo one after the other, relieving themſelves by reſting their heads on the buttocks of each other.

The hind commonly carries her calf eight or nine months, which uſually falls in *May*, although ſome alter: ſome of them have two at once, and eat up the ſkin wherein the calf did lie.

As the calf grows up, ſhe teaches it to run, leap, and the way it muſt take to defend itſelf from the hounds.

Harts and hinds are very long lived, living commonly a hundred years and upwards.

Hart-Hunting.

Gesner, ſpeaking of the hunting of the hart, ſays, 'This wild, deceitful, and ſubtle beaſt, by windings and turnings often deceives its hunter, as the harts of *Meandros* flying from the terrible cry of *Diana's* hounds:' wherefore the prudent hunter muſt frame his dogs, as *Pythagoras* did his ſcholars, with words of art to ſet them on, and take them off again at his pleaſure.

Whereof he muſt firſt of all encompaſs the beaſt in her own layer, and ſo unharbour her in the view of the dogs, that they may never loſe her ſlot or footing.

Neither muſt he ſet upon every one, either of the herd, or thoſe that wander ſolitary alone, or a little one, but partly by ſight, and partly by their footing and fumet, make a judgment of the game, and alſo obſerve the largeneſs of his layer.

The huntſman, having made theſe diſcoveries in order to the chaſe, takes off the coupling of the dogs, and ſome on horſeback, the others on foot, follow the cry, with the greateſt art, obſervation, and ſpeed, remembering and intercepting him in his ſubtle turnings and headings; with all agility leaping hedges, gates, pales, ditches, neither fearing thorns, down hills, nor woods, but mounting a freſh horſe, if the firſt tire; follow the largeſt head of the whole herd, which muſt be ſingled

out

out of the chaſe; which the dogs perceiving, muſt follow; not following any other.

The dogs are animated to the ſport by the winding of horns, and the voices of the huntſmen.

But ſometimes the crafty beaſt ſends forth his little ſquire to be ſacrificed to the dogs and hunters, inſtead of himſelf, lying cloſe the mean time. In this caſe, the huntſman muſt ſound a retreat, break off the dogs, and take in, that is, leam them again, until they be brought to the fairer game; which riſeth with fear, yet ſtill ſtriveth by flight, until he be wearied and breathleſs.

The Nobles call the beaſt a wiſe hart, who, to avoid all his enemies, runneth into the greateſt herds, and ſo brings a cloud of error on the dogs, to obſtruct their farther purſuit; ſometimes alſo beating ſome of the herd unto his footings, that ſo he may the more eaſily eſcape, by amuſing the dogs.

Afterwards he betakes himſelf to his heels again, ſtill running with the wind, not only for the ſake of refreſhment, but alſo becauſe by that means he can the more eaſily hear the voice of his purſuers, whether they be far from him, or near to him.

But at laſt being again diſcovered by the hunters, and ſagacious ſcent of the dogs, he flies into the herds of cattle, as cows, ſheep, &c. leaping on a cow or ox, laying the fore parts of his body thereon, that ſo touching the earth only with his hinder feet, he may leave a very ſmall or no ſcent at all behind for the hounds to diſcern.

A chief huntſman to LEWIS XII. of *France*, affirms, 'That on a time, they having a hart in chaſe, on a ſudden the hounds were at a fault, ſo as the game was out of ſight, that not a dog would once ſtir his foot, at which the hunters were all amazed; at laſt, by caſting their eyes about, they diſcovered the fraud of the crafty beaſt.

There was a great white-thorn, which grew in a ſhady place, as high as a moderate tree, which was encompaſſed about with other ſmaller ſhrubs; into this the hart having leaped, ſtood there aloft, the boughs ſpreading from one to another, and there remained till he was thruſt through by the huntſman, rather than he would yield himſelf up a prey to the hounds his mortal enemies.'

But their uſual manner is, when they ſee themſelves hard beſet, and every way intercepted, to make force at their enemy with their horns, who firſt comes upon him, unleſs they be prevented by ſpear or ſword.

When the beaſt is ſlain, the huntſman with his horn windeth the fall of the beaſt; and then the whole company comes up, blowing their horns in triumph for ſuch a conqueſt, among whom, the ſkilfulleſt opens the beaſt, rewards the hounds with what properly belongs to them, for their future encouragement: for which purpoſe the huntſmen dip bread in the blood of the beaſt to give to the hounds.

The rutting time is the middle of *September*, and continues two months: the older they are the hotter, and the better they pleaſe the hinds, and therefore they go to rut before the young ones; and being very fiery, they will not ſuffer any of them to come near the hinds, till they have ſatisfied their venereal appetite.

But for all this, the young ones are even with the old, for when they perceive that the old are grown weak by exceſs of rutting, the young will frequently attack them, and make them quit the place, that they may be maſters of the ſport.

They may be eaſily killed in rutting-time, for they follow the ſcents of the hinds with ſo much eagerneſs, laying their noſes to the ground, that they mind that only and nothing elſe.

It is very dangerous for any man to come near them at that time, for then they will make at any living creature of a different kind.

In ſome places their luſt ariſes in *October*, and alſo in *May*; and then (whereas at other times the males live apart from the females) they go about like laſcivious lovers, ſeeking the company of the females.

The males, in their raging luſt, make a peculiar noiſe.

One male will cover many females, continuing in this appetite for one or two months.

The females ſeem chaſte, and unwilling to admit of copulation by reaſon of the rigour of the genital of the male; and therefore they ſink down on their buttocks, when they begin to feel his ſemen, as it has been obſerved in tame harts; and if they can, the females run away, the males ſtriving to hold them back with their fore-feet.

It cannot be well ſaid, that they are covered ſtanding, lying, or going, but rather running; ſo are they filled with greateſt ſeverity.

When one month or ſix weeks is over of their rutting, they grow much tamer; and laying aſide all fierceneſs, they return to their ſolitary places, digging every one by himſelf a ſeveral hole or ditch, in which they lie, to aſſuage the ſtrong ſavour of their luſt; for they ſtink like goats, and their face begins to look blacker than at other times: and in thoſe places they live till ſome ſhowers of rain fall; after which they return to the paſture again, living in flocks as they did before.

The female having been thus filled, never aſſociate again with the male till ſhe is delivered of her burthen, which is in about eight months, and produces generally but one at a time, very ſeldom two; which ſhe lodges cunningly in ſome covert. If ſhe perceive them ſtubborn and wild, ſhe will beat them with her feet till they lie cloſe and quiet.

She oftentimes leadeth forth her young, teaching it to run, and leap over buſhes, ſtones, and ſmall ſhrubs, and ſo continueth all the ſummer long, while their own ſtrength is the moſt conſiderable.

It is very pleaſant to obſerve them, when they go to rut, and make their vault; for when they ſmell the hind, they raiſe their noſe up into the air; and if it be a great hart, he will turn his head and look about to ſee whether there be any near him to interrupt and ſpoil his ſport.

Upon this, the young fly away for fear; but if there be any of equal bigneſs, they then ſtrive which ſhall vault

vault firſt; and in the oppoſing each other, they ſcrape the ground with their feet, ſhocking and butting each other ſo furiouſly, that you may hear the noiſe they make with their horns, half a mile, ſo long till one of them is the conqueror.

The hind beholding this encounter, never ſtirs from her ſtation, expecting, as it were, the vaulting of him who ſhall get the maſtery, who having got it, bellows, and then inſtantly covers her. The coats or colours of harts are of three different ſorts, brown, red, and fallow; and of each of theſe coats there proceeds two ſorts of harts, the one great, and the other ſmall.

Of brown harts, there are ſome great, long, and hairy, bearing a high head, of a red colour, and well beamed, who will ſtand before hounds very long, being longer of breath, and ſwifter of foot than thoſe of a ſhorter ſtature.

There is another ſort of brown harts, which are little, ſhort and well-ſet, bearing commonly a black mane, and are fatter and better veniſon than the former, by reaſon of their better feeding in young coppices.

They are very crafty, eſpecially when in greaſe, and will be hardly found, becauſe they know they are moſt inquired after; beſides, they are ſenſible they cannot then ſtand long before the hounds.

If they be old, and feed on good ground, then are their heads black, fair, and well branched, and commonly palmed at the top.

The fallow harts bear their heads high, and of a whitiſh colour, their beams ſmall, their antlers long, ſlender and ill grown; having neither heart, courage, nor force.

But thoſe which are of a lively red fallow, having a black or brown liſt down the ridge of the back, are ſtrong, bearing fair and high heads, well furniſhed and beamed. As there are ſeveral ſorts of harts, ſo alſo have they different heads, according to their age, country, reſt, and feeding.

Here you muſt take notice, that they bear not their firſt head (which we call broches, and in a fallow deer pricks) until they enter the ſecond year of their age.

In the third year they bear four, ſix, or eight, ſmall branches: at the fourth, they bear eight or ten: at the fifth ten or twelve: at ſix, fourteen or ſixteen: and at the ſeventh year, they bear their heads beamed, branched and ſummed, with as much as ever they will bear, and do never multiply, but in greatneſs only. An old hart caſteth his head ſooner than the young, and the time is about the months of *February* and *March*.

Note, that if you geld a hart before he hath a head, he will never bear any; and if you geld him when he has a head, he will never after mew and caſt it: and ſo if he be gelded when he hath a velvet head, it will ever be ſo, without fraying or burniſhing.

As ſoon as they have caſt their heads, they inſtantly withdraw into the thickets, hiding themſelves in ſuch convenient places where they can have good water and ſtrong feeding, near ſome ground where wheat and peas are ſown: but young harts do never betake themſelves to the thickets till they have borne their third head, which is the fourth year.

After they have mewed, they will begin to button in *March* and *April*; and as the ſun grows ſtrong, and the ſeaſon of the year puts forward the crop of the earth, ſo will their heads increaſe in all reſpects; ſo that by the middle of *June*, their heads will be ſummed as much as they will bear all the year.

The Names and Diverſity of Heads, according to the Terms uſed by Hunters.

That part which bears the antlers, royals, and tops, is called the beam, and the little ſtreaks therein are called gutters.

That which is about the cruſt of the beam is termed pearls, and that which is about the bur itſelf, formed like little pearls, is called pearls bigger than the reſt.

The bur is the next head, and that which is about the bur is called pearls; the firſt is called antler, the ſecond ſur-antler: all the reſt which grow afterwards, until you come to the crown, palm, or croche, are called royals and ſur-royals; the little buds or broches about the top, are called croches.

Their heads alſo go by ſeveral names; the firſt head is called a crowned top, becauſe the croches are ranged in form of a crown.

The ſecond is called a palmed top, becauſe the croches are formed like a man's hand.

Thirdly, all heads which bear not above three or four, the croches being placed aloft, all of one height, in form of a cluſter of nuts, are to be called heads of ſo many croches.

Fourthly, all heads which bear two in the top, or having their croches doubling, are to be called forked heads.

Fifthly, all heads which have double burs, or the antlers royals, and croches turned downwards, contrary to other heads, are only called heads. *See* HUNTING.

How to know an old Hart by the Slot, Entries, Abatures, Foils, Fewmets, Gait and Walks, Fraying-ſtocks, Head and Branches.

Firſt, by the ſlot. You muſt take good notice of the treading of the hart's foot; if you find the treading of two, the one long, and the other round, yet both of one bigneſs, yet the long ſlot will indicate the hart to be much larger than the round.

And beſides, the old hart's hind-foot doth never over-reach the fore-foot; that of the young ones do.

But above all take this obſervation: when you have found the ſlot of a hart in the wood, take notice what manner of footing it is, whether worn or ſharp; and accordingly obſerve the country, and judge by that whether either may be occaſioned thereby.

For harts bred in mountains and ſtony countries, have their toes and ſides of their feet worn, by means of

of their continual climbing and reſting themſelves thereon, and not on the heel; whereas in other places they ſtay themſelves more on the heel than toes; for in ſoft or ſandy ground they ſlip upon the heel, by reaſon of their weight, and thus by frequently ſtaying themſelves thereon, it makes the heel grow broader and bigger.

And thus may the age of a hart be known by his ſlot or treading.

The next thing to be conſidered is the fewmets; and this is to be judged of in *April* and *May*. If the fewmets or fewmiſhing be large and thick, they intimate that the hart is old.

In the months of *June* and *July* they make their fewmets in large croteys, very ſoft; and from that time to the end of *Auguſt*, they make them large, long, knotty and anointed, and gilded, letting them fall but few and ſcattered.

In *September* and *October*, there is no longer paſſing a judgment by them, by reaſon of the rut.

Thirdly, in order to know the height and thickneſs of a hart, obſerve his entries and galleries into the thickets, and what boughs he has over-ſtridden, and mark from thence the height of his belly from the ground.

By the height of the entries, a judgment is made of the age of a hart; for a young deer uſually creeps, but the old ones are ſtiff and ſtately.

His largeneſs may be known by the height of his creeping as he paſſes to his harbour, the young deer creeping low, which the old will not ſtoop to.

Fourthly, take notice of his gait, by which you may know whether the hart be great and long, and whether he will ſtand long before the hounds or not; for all harts which have a long ſtep will ſtand up a long while, being ſwift, light and well breathed; but if he leave a great ſlot, which is the ſign of an old deer, he will never ſtand long when he is chaſed.

Laſtly, take notice of his fraying-poſt; where obſerve, that by how much the hart is the older, the ſooner he goes to fray, and the larger is the tree he chuſes to fray againſt, and one ſo ſtrong that he cannot bend with his head.

All ſtags as they are furniſhed, beat their heads dry againſt ſome tree or other, which is called their fraying-poſt; the younger deer do it againſt weaker, leſſer, and lower trees; ſo that accordingly hunters judge confidently of their age, and of the nearneſs of their harbour, for that is the laſt action or ceremony they uſe before they enter it.

As to the head and branches, a hart is old, firſt, when the compaſs of the bur is large, great and well pearled.

Secondly, when the beam is large burthened and well pearled, being ſtraight, and not rendered crooked by antlers.

Thirdly, when the gutters in it are large and deep.

Fourthly, when the firſt antler, called antellier, is large, long, and near to the bur, the ſur-antler near to the antler; and they ought to be both well pearled.

Fifthly, the reſt of the branches which are higher, being well ordered and ſet, and well grown, according to the largeneſs and proportion of the head, and the croches, palm, or crown, being great and large too, according to the largeneſs of the beam, are ſigns of an old hart.

How to ſeek a Hart in his Haunts, and feeding-places, according to the Seaſons of the Year.

All harts change their manner of feeding every month; and as *November* is the concluſion of their rutting-time, I ſhall begin with that month: in this they feed in heaths and broomy places.

In *December* they herd together, and withdraw themſelves into the ſtrengths of the foreſts, to ſhelter themſelves from the cold winds, ſnows and froſts, and feed on the holm trees, elder trees, brambles or any green thing they can find; and if it ſnows, they will ſkin or peel the trees like a goat.

In *January*, *February*, and *March*, they leave herding, but will keep four or five in company, and in the corners of the foreſt will feed on the winter-paſture, ſometimes making their incurſions into the neighbouring corn-fields, if they can perceive the blades of wheat, rye, or the like, appear above ground.

In *April* and *May*, they reſt in their thickets and other buſhy and ſhady places, during that ſeaſon, and ſtir very little till rutting-time, unleſs they are diſturbed.

There are ſome harts ſo cunning, that they will have two ſeveral layers to harbour in, a good diſtance one from the other, and will frequently change (for their greater ſecurity) from the one to the other, taking ſtill the benefit of the wind.

In theſe months they go not to the ſoil, by reaſon of the moiſture of the ſpring, and the dew that continually overſpreads the graſs.

In *June*, *July*, and *Auguſt*, they are in the pride of their greaſe, and do reſort to ſpring-coppices and corn-fields, only they ſeldom go where rye or barley grows.

In *September* and *October*, they leave their thickets and go to the rut, during which ſeaſon they have no certain place either for food or harbour. He ought not to come too early into the ſprings or hewts where he thinks the hart feedeth, and is at relief, for they uſually go to their layers in the ſprings; and if they be old, crafty deer, they will return to the border of the coppice, and there liſten whether they can hear any approaching danger, and if they once chance to vent the huntſman or the hound, they will inſtantly diſlodge.

Now is the huntſman's proper time: let him beat the outſides of the ſprings or thickets; if he find the track of a hart or deer, he ought to obſerve whether it be freſh, which may be known by the following tokens; the dew will be beaten off, the ſoil freſh, or the ground broken, or printed with other tokens; ſo he may judge his game lately went that way.

Having found his ſlot or treading, and the hound ſticking well upon it, let him hold him ſhort; for he ſhall draw better being ſo held than if he were let at length

length of the leam; and thus let him draw till he is come to the covert, if poſſible, taking notice, by the way, of the ſlot, falls, entries, and the like, till he hath harboured him.

Having done this, let him plaſh down ſmall twigs, ſome above and ſome below, as he ſhall think fit; and then while the hound is hot, let him beat the outſides and make ring-walks twice or thrice about the wood, one while by the great and open ways, that he may help himſelf by the eye; another while through the thickets and coverts, for fear leſt his hounds ſhould overſhoot it, having ſtill better ſcent in the covert than highways.

If he is in doubt whether the hart is gone out of the ring-walks, or fears he has drawn amiſs, then let him go to the marks that he plaſhed, and draw counter, till he may take up the fewmet.

Directions for harbouring a Stag.

The harbourer having taught his hound to draw mute always round the outſide of the covert, as ſoon as his hound challenges, which he knows by his eager flouriſhing and ſtraining his leam, he is then to ſeek for his ſlot; if he finds the heel thick, and the toe ſpreading broad, theſe are ſigns that it is an old deer, eſpecially if it is fringed, that is, broken on both the ſides.

And if the ground be too hard to make any judgment from the ſlot, he muſt draw into the covert, as he paſſes obſerving the ſize of the entries; the larger and higher, the older the deer: as alſo his croppings of the tender as he paſſes; the younger the deer the lower; the older the deer the higher are the branches.

He ought alſo to obſerve his fewmiſhings as he paſſes, the largeneſs of which beſpeaks the largeneſs of the deer: he muſt alſo be curious in obſerving the fraying-poſt, which is uſually the laſt opportunity he has to judge by; the eldeſt deer fraying higheſt againſt the largeſt trees, and theſe being found, it may be concluded his harbour is not far off.

Therefore he ought to draw with more circumſpection, checking the drawing-hound to ſecure him from ſpending when he comes ſo near as to have the deer in the wind, which when you have diſcovered by his eagerneſs that draws him, let him retire ſome diſtance back, and round the place with the hound, firſt at a conſiderable diſtance, and then if he finds him not diſturbed, let him make a ſecond round within that; and this will not only ſecure you that he is in the harbour, but will alſo ſecure his continuance there; for he will not (except he be forced) paſs that taint your hound left in the rounding of him.

So that having broke a bough for his direction, he may at any time unharbour that hart.

How to find a Hart loſt the Night before.

A huntſman may fail of killing a hart divers ways; ſometimes by reaſon of great heat, or by being overtaken with the night, or the like.

If it ſhould happen ſo do as follows:

Firſt, they who follow the hounds, muſt mark the place where they left the chaſe, and at break of day bring the blood-hound to it with the kennel after him.

If any hound vents, whom he knows to be no liar nor babler, he ſhall put his hound to it, whooping twice, or blowing two notes with his horn, to call on all his fellows about him; and if he finds that the hart is gone into ſome likely covert or grove, then muſt he draw his hounds about it, and if he there renews the ſlot or view, let him firſt conſider whether it be right or not; if it be right let him blow his horn.

And if he happens to find five or ſix layers, let it not ſeem ſtrange, for harts hunted and ſpent do frequently make many layers together, becauſe they cannot ſtand, but lie and feed.

Harts, which are hunted, moſt commonly run up the wind, and ſtraight forwards as far as they are able, and finding any water or ſoil, do ſtay a long time therein, by which means their joints are ſo benumbed and ſtiffened, that coming out, they cannot go far, nor ſtand up long, and therefore are forced to take up with any harbour they can find which may be a preſent covert to them. In the ſeeking of a hart in high woods, you muſt have regard to two things; that is, the thickets of the foreſt, and the ſeaſon.

If it be in very hot weather, gnats, horſe-flies, and the like, drive the deer out of the high woods, and they diſperſe themſelves into ſmall groves and thickets, near places of good feeding.

According to the coverts which are in the foreſt, ſo muſt the huntſman make his inquiry; for ſometimes the hart lies in the tufts of white thorn, ſometimes under little trees, other whiles under great trees in the high woods and ſometimes in the ſkirts of the foreſt, under the ſhelter of little groves and coppices.

And therefore the huntſman muſt make his ring-walk large or ſmall, according to the largeneſs of thoſe harbours or coverts.

How to unharbour a Hart and caſt off the Hounds.

When the relays are well ſet and placed, let the huntſman with his pole walk before the kennel of hounds, and being come to the blemiſhes, let him take notice of the ſlot, and ſuch other marks as may be obſerved from the view of the deer, in order that he may know whether the hounds run riot or not.

Then the huntſman muſt caſt abroad about the covert, to diſcover the hart when he is unharboured, the better to diſtinguiſh him by his head or otherwiſe.

The hart being unharboured, let all the hounds be caſt off, then crying one and all, *To him, to him, That's he, that's he*, with other ſuch words of encouragement.

If the blood-hound, in drawing, chance to overſhoot, and draw wrong or counter, then the huntſman muſt draw him back, ſaying, *Back, back, Soft, ſoft*, until he hath ſet him right again; and if he perceive that the hound hath mended his fault, by his kneeling down and

and obſerving the ſlot or ports, he muſt then cheriſh him, by clapping him on the back, and giving him his encouraging words; thus muſt he draw on with his hounds till he deſcries the deer.

Some deers are ſo cunning and crafty, that when they are unharboured from their layer, they will coaſt round about to find ſome other deer, whereby the hounds may be confounded in the change of hunts.

If the huntſman have the hart in view, he ought ſtill to draw upon the ſlot, blowing and hallooing till the hounds are come in. When he finds they are in full cry, and take it right, he may then mount, keeping under the wind and coaſt, to croſs the hounds that are in chaſe, to help them at default, if need requires. A huntſman ought never to come nearer to the hounds in cry, than fifty or ſixty paces, eſpecially at the firſt uncoupling, or at caſting off the relays; for if a hart make doubling, or wheel about or acroſs before the hounds (as he ſeldom does) if then you come in too haſtily, you will ſpoil the ſlot or view, and ſo the hounds for want of ſcent, will be apt to over-ſhoot the chaſe.

But if after you have hunted an hour, the huntſman perceives that the hart makes out end-ways before the hounds, and that they follow in full cry, taking it right, then he may come in nearer, and blow a recheat to the hounds to encourage them.

Hereupon the hart will frequently ſeek other deer at layer, and rouze them, on purpoſe to make the hounds change hunt, and will lie down in ſome of their layers flat upon his belly, and ſo ſuffer the hounds to over-ſhoot him; and that they may not either ſcent or vent him, he will gather up all his four feet under his belly, and will blow or breathe on ſome moiſt place of the ground, ſo that the hounds may paſs by him poſſibly, though within a yard, and never vent him.

For which cauſe huntſmen ſhould blemiſh at thoſe places, by which they ſee the hart enter into a thicket, to the end, that if the hounds ſhould fall to change, they may return to thoſe blemiſhes, and put the hounds to the right ſlot and view, until they have rouzed and found him again.

A hart has another way to bring the hounds to change, and that is when he ſees himſelf cloſely purſued, and that he cannot ſhun them, he will break into one thicket after another to find deer, rouzing and herding with them, continuing ſo to do ſometimes above an hour, before he will part from them or break herd.

Finding himſelf ſpent, he will break herd and fall a doubling and croſſing in ſome hard highway that is much beaten, or elſe in ſome river or brook, in which he will keep as long as his breath will permit him; and if he be far before the hounds, it may be then he will uſe the former device, in gathering his legs under his belly, as he lies flat along upon ſome hard dry place.

Sometimes he will take ſoil, and ſo cover himſelf under the water, that you ſhall perceive nothing but his noſe.

In this caſe the huntſman muſt have a ſpecial regard to his old hounds, who will hunt leiſurely and fearfully, whereas the young hounds will over-ſhoot their game.

If the hounds happen to be at a default, and hunt in ſeveral companies, then it may be gueſſed that the hart hath broken herd from the freſh deer, and that the freſh deer have ſeparated themſelves alſo; then notice is to be taken how the old ſtaunch hounds make it, and to obſerve the ſlot; and where you ſee any of the old hounds challenge, cheriſh and encourage that hound or hounds, haſtening the reſt in to him, crying hark to ſuch a hound, calling him by his name.

Here it is to be noted, that they cannot make it ſo well in the hard highways as in other places, becauſe they cannot have there ſo perfect a ſcent, either by reaſon of the tracks or footing of divers ſorts of beaſts, or by reaſon of the ſun drying up the moiſture, ſo that the duſt covereth the ſlot. Now in ſuch places (ſuch is the natural ſubtlety of the beaſt for ſelf-preſervation) the hart will make many croſſings and doublings, holding them long together, to make the hounds give over the chaſe.

In this caſe, the firſt care of the huntſman is to make good the head, and then draw round apace; firſt down the wind, though deer uſually go up the wind; and if the way is too hard to ſlot, then be ſure to try far enough back. Expert hounds will often do this of themſelves.

But if a hart break out into a champagne country, and in the heat of the day too, *i. e.* between noon and three of the clock, then if the huntſman perceive his hounds out of breath, he ought not to force them but comfort them; and though they do not call upon the ſlot or view, yet it is ſufficient if they do but wag their tails, for being almoſt ſpent, it is painful for them to call.

The laſt refuge of a hart that has been cloſely hunted, is the water, which in terms of art is called the ſoil; ſwimming ofteneſt down the ſtream, keeping the middle, fearing leſt by touching any bough by the water-ſide, he may give ſcent unto the hounds.

Whenever you come to a ſoil (according to the old rule, *He who will the chaſe find, let him firſt try up river and down the wind*) be ſure if your hounds challenge but a yard above his going in, that he is gone up the river; for though he ſhould keep the very middle of the ſtream, yet will that, with the help of the wind, lodge part of the ſteam and imboſh that comes from him on the bank, it may be a quarter of a mile lower, which has deceived many.

Therefore firſt try up the ſtream, and where a deer firſt breaks ſoil, both man and hound will beſt perceive it.

Now the ways to know when a hart is ſpent, are theſe:

Firſt. He will run ſtiff, high, and lumpering.

Secondly. If his mouth be black and dry, without any foam upon it, and his tongue hanging out; but they will often cloſe their mouths to deceive ſpectators.

Thirdly. By his ſlot; for oftentimes he will cloſe his claws together as if he went at leiſure, and preſently again open them wide, making great glidings, and hit-

ting his dew-claws upon the ground, following the beaten paths without doublings, and ſometimes going all along by a ditch-ſide, ſeeking ſome gap, not having ſtrength to leap it: yet it has been often ſeen, that dead run deer have taken very great leaps.

A huntſman muſt therefore govern himſelf according to the ſubtlety and craft of the deer, obſerving the doublings and croſſings, and the places where they are made; making his rings little or great, according to the nature of the places, time, and ſeaſon; for hounds are apt to ſhoot where herbs and flowers have their moſt lively ſcent and odoriferous ſmell.

Neither is the perfection or imperfection of the hounds to be diſregarded. And if theſe things be done, it will be much if you loſe a hart by default.

To kill a Hart at bay.

It is very dangerous to go in to a hart at bay, eſpecially at rutting-time, for at that time they are moſt fierce.

There are two ſorts of bays; one on the land, and the other on the water. Now if the hart be in a deep water, where you cannot well come at him, then couple up your dogs; for ſhould they continue long in the water, it would endanger their ſurbating or foundering.

In this caſe get a boat and ſwim to him, with a dagger drawn, or elſe with a rope that has a nooſe, and throw it over his horns; for if the water be ſo deep that the hart ſwims, there is no danger in approaching him; otherwiſe you muſt be very cautious.

As to a land bay, if a hart be burniſhed, then you muſt conſider the place; for if it be in a plain and open place, where there is no wood nor covert, it is dangerous and difficult to come in to him; but if he be on a hedge ſide, or in a thicket, then while the hart is ſtaring on the hounds, you may come ſoftly and covertly behind him and cut his throat.

If you miſs your aim, and the hart turn head upon you, then take refuge at ſome tree; and when the hart is at bay, couple up your hounds; and when you ſee the hart turn head to fly, gallop in roundly to him, and kill him with your ſword.

The firſt ceremony, when the huntſman comes in to the death of a deer, is, to cry, *Ware haunch*, that the hounds may not break in to the deer; which being done, the next is the cutting his throat, and there blooding the youngeſt hounds, that they may the better love a deer, and learn to leap at his throat: then the mort having been blown and all the company come in, the beſt perſon, who hath not taken ſay before, is to take up the knife that the keeper or huntſman is to lay acroſs the belly of the deer, ſome holding by the fore-legs, and the keeper or huntſman drawing down the pizzle, the perſon who takes ſay, is to draw the edge of the knife leiſurely along the middle of the belly, beginning near the briſket, and drawing a little upon it, enough in the length and depth to diſcover how fat the deer is; then he that is to break up the deer, firſt ſlits the ſkin from the cutting of the throat downwards, making the arber that ſo the ordure may not break forth, and then he paunches him, rewarding the hounds with it.

In the next place, he is to preſent the ſame perſon, who took ſay, with a drawn hanger, to cut off the head of the deer. Which being done, and the hounds rewarded, the concluding ceremony is, if it be a ſtag, then one blows a triple mort; and if a buck, a double one, and then all who have horns, blow a recheat in conſort, and immediately a general whoop, whoop.

It was formerly termed a wind or winding horn; the horns probably, were winding, or compaſſed, but afterwards ſtraight horns grew into uſe, and then they uſed to ſay, blow a horn, and ſound a horn; and now, *French* or *German* horns are in repute.

In many caſes formerly, leaſing was obſerved; that is, one was held either croſs a ſaddle or on a man's back, and with a pair of dog-couples, receives ten pounds and a purſe, that is, ten ſtripes (according to the nature of the crime, more or leſs ſevere) and an eleventh that uſed to be as bad as the other ten, called a purſe.

There are many faults; as coming too late into the field; miſtaking any term of art: theſe are of the leſſer ſort; the greater are, hallooing a wrong deer, or leaving the field before the death of the deer, &c.

HART, OR STAG EVIL, is a ſort of rheum or defluxion, that falls upon the jaws and other parts of the forehead of a horſe, which hinders him from eating.

Sometimes this diſtemper affects the parts of the hinder quarters.

HART ROYAL, is an hart that has been hunted by the King or Queen, and eſcaped with life.

HART ROYAL PROCLAIMED; thus they call an hart, who having been hunted by the King or Queen, flies ſo far from the foreſt or chaſe, that it is unlikely he will ever return of his own accord to the place where he lodged, and that thereupon a proclamation is made in all towns and villages thereabouts, that none ſhould kill him or offend him, but that he may ſafely return if he liſt.

HASTE, OR QUICKEN, YOUR HAND, is an expreſſion frequently uſed by the riding maſter, when a ſcholar works a horſe upon volts, and the maſter has a mind he ſhould turn his hand quicker to the ſide on which the horſe works; ſo that if the horſe works to the right, he turns quicker with his ſhoulders to the right; and the like is obſerved, if he works to the left.

HAUNCH OR HANCH; the hip, part of the body of a living creature.

The haunches of a horſe are too long, if, when ſtanding in the ſtable, he limps with his hind legs farther back than he ought, and that the top or onſet of his tail does not anſwer in a perpendicular line to the tip of his hocks; as it always does in horſes whoſe haunches are of a juſt length.

There are ſome horſes, which though they have too long

long haunches, yet commonly walk well; ſuch are good to climb hills; but to balance that, they are not fit to go down a deſcent; for they cannot ply their hams, and they never gallop ſlowly, but almoſt at full ſpeed.

HAUNCH OR HIP OF A HORSE, is that part of the hind quarter that extends from the reins or back to the hough or ham.

The art of riding the great horſe, has not a more neceſſary leſſon than that of putting a horſe upon his haunches; which, in other terms, is coupling him well, or putting him well together, or compact.

A horſe that can't bend and lower his hips, throws himſelf too much upon his ſhoulders, and lies heavy upon the bridle.

A horſe is ſaid to be thoroughly managed when he bears well upon the hand, knows the heels, and ſits well upon his hips; as,

This horſe has his haunches in ſubjection, and falques very well; for in making his falquades, he holds his haunches very low, and bends admirably well.

To make a horſe bend his hips, you muſt frequently go backward, and make uſe of the aids of the hands, and of the calves of your legs in giving him good ſtops; and if that does not ſucceed, try him upon a calade or ſloping ground, after the *Italian* faſhion. Hence they ſay,

Your horſe makes his hips accompany his ſhoulders ſo well, that he is perfectly right ſet. *See Put upon the* HAUNCHES, CALADE, CAVESSON, FALQUADE, *and* FEEL.

To drag the haunches is to change the leading foot in galloping. *See* GALLOP FALSE.

Head in and hips in. *See* HEAD.

To gallop with the haunch in. *See* GALLOPADE.

HAUNT. Habit or cuſtom.

Among hunters, the walk of a deer, or the place of his ordinary paſſage.

HAUNTS OF FOWLS. It is a thing of no ſmall moment to a fowler to be acquainted with the haunts of fowls.

In order to this you ought to underſtand, that all kinds of the larger fowls, *viz.* thoſe which divide the foot, have their haunts by the ſides of ſhallow rivers, brooks, and plaſhes of water; and thoſe who do not appear in flocks, but you may ſee here one ſingle, there a couple, and the like, which makes them difficult to be taken by engine or device; but they are the beſt flight for hawks that can be imagined.

Likewiſe theſe fowls delight in low and boggy places; and the more ſedgy, marſhy, and rotten ſuch grounds are, the fitter they are for the hunting of theſe fowl.

They alſo delight in the dry parts of drowned fens, which are over grown with tall long ruſhes, reeds, and ſedges.

Laſtly, they delight in half-drowned moors, or the hollow vales of downs, heaths, or plains, where there is ſhelter either of hedges, hills, tufts of ruſhes, or trees, where they may lurk obſcurely.

The leſſer fowl, which are web-footed, continually haunt drowned fens, where they may have conſtantly plenty of water, and may ſwim undiſturbed by man or beaſt; their haunt is likewiſe in the main ſtream of rivers, where the current is ſwifteſt and leaſt ſubject to freeze; and by how much ſuch rivers are the broader and deeper, the greater delight theſe fowls take therein.

The wild-gooſe and barnacle excepted, who abide no water above their ſounding; for when they cannot reach the ouze, they inſtantly remove thence, ſeeking out more ſhallow places.

Theſe two laſt named, are inconceivably delighted with green winter corn, and therefore you will always find them where ſuch grain is ſown, eſpecially if the ends of the lands have much water about them.

Alſo the ſmaller fowls do very much frequent ſmall brooks, rivers, ponds, drowned meadows, paſtures, moors, plaſhes, meres, loughs and lakes, eſpecially if well ſtored with iſlands unfrequented, and well furniſhed with ſhrubs, ruſhes, reeds, &c. and then they will breed there, and frequent thoſe places both ſummer and winter.

HAW. A griſtle which grows between the nether eye-lid and eye of a horſe, and if not timely removed, will put it quite out.

It proceeds from groſs, tough, and phlegmatic humours, which fall from the head, and there uniting together, and indurating, at length come to this infirmity.

The ſigns by which this may be known, are, the watering of the eye, and the involuntary opening of the nether lid. Though every farrier can cut it out; but ordinarily the horſe muſt be held faſt by the head, and with a ſtrong double thread, put a needle in the midſt of the upper eye-lid, and tie it to his head; then take the needle again, with a long thread, and put it through the griſtle of the haw, and with a ſharp knife cut the ſkin finely round, and therewith pluck out the haw.

Then take the blood out of his eye, waſh it with beer or ale, and put in a good deal of ſalt, and afterwards waſh it again, ſtroaking it down with your hand, and let him reſt.

The beſt method of cure is to cut it away, though, while it is very ſmall, it may be deſtroyed by the following powder.

Take twenty grains of cuttle-bone; ten grains of common glaſs finely levigated; fifteen grains of white vitriol; half a dram of Florentine orice-root; mix, and blow a little upon the haw three times a-day; and half an hour after each time this powder is blown in, waſh it away with a little brandy and water.

If this excreſcence is cut away, do not cut it too near, for that on the other hand may cauſe a bleared eye. After the harder part is all cut off, you may dreſs the wound with honey of roſes, mixed with one eighth part of tincture of myrrh; and if ſpongy fleſh ariſes, ſprinkle it with burnt alum.

HAWK. This bird is diſtinguiſhed into two kinds; the long-winged and ſhort winged hawk.

The firſt year of a hawk it is called a Soarage; the ſecond an Enterview; the third a White-Hawk; and the fourth a Hawk of the firſt Coat.

Of the firſt, there are theſe, which were moſt in uſe here amongſt us:

The Gerfalcon and its male the Jerkin.
The Falcon and ditto Tiercel Gentle.
The Lanner and ditto Lanneret.
Bockerel and ditto Bockeret.
The Saker and ditto Sakeret.
The Merlin and its male the Jack Merlin.
The Hobby and ditto Jack, or Robbin.
The Stelletto of *Spain*.
The Blood Red Rook of *Turkey*.
The Waſkite from *Virginia*.

Of the ſhort-winged hawks, there are theſe that follow.

The Eagle and its male the Iron.
The Goſhawk and ditto Tiercel.
The Sparrow-Hawk and its male the Muſket.
The two ſorts of *French* Pie.

Of the inferior ſort are theſe;

The Stanyel, or Ring Tail.
The Raven and Buzzard.
The Forked Kite and Bold Buzzard.
The Hen-driver, *&c.*

Note, For the terms uſed in hawking, *ſee the Article* TERMS.

HAYS. Particular nets for taking of rabbets, hares, &c. common to be bought in ſhops that ſell nets; and they may be had larger, or ſhorter, as you think fit; from fifteen to twenty fathom is a good length; and for depth a fathom.

As rabbets often ſtraggle abroad about mid-day for freſh graſs; when you perceive a number gone forth to any remote brakes or thickets, pitch two or three of theſe hays about their burrows; lie cloſe there, but in caſe you have not nets enough to encloſe all their burrows, ſome may be ſtopped with ſtones, buſhes, &c.

Then ſet out with the coney dog, to hunt up and down at a good diſtance, and draw on by degrees to the man who is with you, and lies cloſe by the hay, who may take them into it.

HAYWARD, OR HAWARD, a keeper of the common herd of cattle of the town, who is to look that they neither break nor crop the edges of encloſed grounds, and is ſworn in the Lord's court for the performance of his office.

HEAD, PAIN IN, OF ASSES, moſtly proceeds from cold taken by travelling in wet ways, or lying in wet places, or elſe by being too much expoſed to the ſun in the hot ſeaſons.

Take polypodium of the oak a handful, muſhrooms two or three, ſorrel a handful; boil them in ſtale beer, and give it hot.

HEAD, PAIN IN, OF GOATS, often happens through exceſſive heats or colds; alſo from wet or unwholeſome feedings.

Take a handful of roſemary-tops, an ounce of turmeric beaten into powder, and the like quantity of mithridate; boil them in water, and put a little vinegar to it, and ſo let him drink half a pint each morning: put vinegar, wherein hyſſop has been ſeethed, into his noſtrils, and hold up his head, that he turn it not out, for ſix minutes, or thereabout.

HEAD, PAIN IN, OF SHEEP; alſo happens in exceſſive hot weather, which is very troubleſome to ſheep, hinders their feeding, and endangers their lives.

Let blood in the temple-veins, and ſlit the noſe-vein; then take mint, rue, and baum, of each a little handful, and boil them in two quarts of ſmall beer: give a pint morning and evening ſucceſſively. Or,

Take ſix grains of aſſa-fœtida, two ſpoonfuls of the juice of ſage, a quartern of wine-vinegar, and give them the ſheep as warm as may be. Or,

Get long-pepper, honey, anniſeeds, linſeed, and liquorice, each an ounce; powder what will pulveriſe; then put them all into two quarts of milk, and give half a pint at a time, waſhing the mouth and temples with vinegar.

HEAD, PAIN IN, OF SWINE; the cure:

Firſt let the ſwine blood under the tongue, then boil rue, ſavin, and cropleſtone, in their water, and ſcatter ſome ſweet malt in it, and ſo they will the better take it. Or,

Bleed him under the tongue and ears, rub his mouth with a mixture of vinegar and bay-ſalt, and give him lettuce-leaves, or colewort and beet-leaves, boiled in whey; and in his water boil roſemary, vervain, ſplent beans, and lavender: do this two or three days together. Or,

If it is the head-ach, or ſleepy-evil, bleed under the tongue, and rub the wound with bay-ſalt, giving them for a time cabbage or colewort leaves, tares, peaſe, and whey to drink.

HEAD OF A HORSE ſhould be narrow, lean and dry, neither ſhould it be too long: but the main point is a good onſet, ſo as he may be able to bring it into its natural ſituation: which is, that all the fore parts, from the brow to the noſe, be perpendicular to the ground, ſo that if a plummet were applied thereto, it muſt juſt raze or ſhave it.

Every horſe that has a large head, is apt to reſt and loll upon the bridle, and by that means, in a journey, tire the hand of the rider; and beſides, he can never appear well with a large head, unleſs he has alſo a long and well turned neck.

Head of a horſe imports the action of his neck, and the effect of the bridle and the wriſt; this horſe plants his head well, and obeys the hand; ſuch a horſe refuſes to place his head; he ſhoots out his noſe, and never reſts right upon the hand, *&c.*

HEAD IN, AND LIKEWISE THE HIPS. You muſt paſſage your horſe's head and croupe in, *i. e.* work him ſideways, upon two parallel lines, at ſtep or trot, ſo that when the horſe makes a volt, his ſhoulders mark a piſte, or trade, at the ſame time that his haunches give the tract of another, and the horſe plying or bending his neck, turns his head a little within the volt, and ſo looks upon the ground he is to go over.

HEAD-STALL. *See* CAVESSON.

HEADS [amongſt Hunters]; all thoſe in deer that have

have double burs, or the antlers; royals and croches turned downwards, are properly termed heads.

Heads of ſo many croches: all heads of deer which do not bear above three or four, the croches being placed aloft, all of one height, in form of a cluſter of nuts, generally go by this name. *See* HARTS.

HEARSE (among Hunters) a hind of the ſecond year of her age. *See* BROCKET *and* HIND.

HEARTS. A horſe of two hearts, *i. e.* a horſe that works in the manage with conſtraint and irreſolution, and cannot be brought to conſent to it

Such horſes are much of a-piece with your ramingues, or kickers againſt the ſpurs.

HEAVY. To reſt heavy upon the hand, is ſaid of a horſe, who, through the ſoftneſs of his neck, weakneſs of his back, and weight of his fore-quarters, or through wearineſs, throws himſelf upon the bridle, but withal, without making any reſiſtance, or any effort to force the horſeman's hand. Thus they ſay,

Your horſe has too great an *appui* or reſt upon the bridle; he is heavy upon the hand; trot him upon his haunches, and ſuſtain or bear up with the bridle.

By ſtopping him, and making him go back frequently, you may make him light upon the hand, and ſo correct that fault, if it comes only from lazineſs and ſtiffneſs; but if it proceeds from a defect in the back, there is no remedy for it.

Though a horſe is heavy upon the hand, yet that is not ſo great a fault as if he preſſed and reſiſted the hand *See* PRESS.

HECK. An engine to take fiſh in the river Ouſe. A ſalmon heck is a grate to catch that ſort of fiſh.

HEEL OF A HORSE ſhould be high and large, and one ſide of it ſhould not riſe higher upon the paſtern than the other.

For diſtempers in this part, and their cures, *See* SCABBY HEELS *and* SCRATCHES.

HEEL OF A HORSE, is the lower hinder-part of the foot, comprehended between the quarters, and oppoſite to the toe.

This being the part of a man that is armed with the ſpur, the word heels is taken from the ſpur itſelf: hence they ſay,

This horſe underſtands the heel well; he knows the heels; he obeys the heels; he anſwers the heels; he is very well upon the heels: the meaning of all which is, that the horſe obeys the ſpurs; which, in effect, is flying from them.

Make him fly from the right heel, make him fly from the left.

To ride a horſe upon the hands and heels, is to make him take the aids of the hands and the heels with a tender ſenſe.

To ride a horſe from one heel to the other, is to make him go ſide-ways, ſometimes to one heel, ſometimes to another: for inſtance, having gone ten paces, in flying from the right heel, you make him without ſtopping go ſtill ſide-ways in flying from the left heel, and ſo on alternately.

Inner heel, and outer heel. *See* INN AND NARROW.

HEELED, OR BLOODY-HEELED COCK. A fighting cock, that ſtrikes or wounds much with his ſpurs. Cock-maſters know ſuch a cock, while a chicken, by the ſtriking of his two heels together in his going.

HEINUSE (among Hunters) a roe-buck of the fourth year.

HELPS. To teach a horſe his leſſon, there are ſeven helps or aids to be known; theſe are the voice, rod, bit, or ſnaffle, the calves of the legs, the ſtirrups, the ſpur, and the ground. Theſe helps are occaſionally turned into corrections. *See* AIDS.

HEN'S-DUNG, SWALLOWED BY HORSES, Mr. LAWRENCE ſays, frequently happens to country cart-horſes, paſſing off with a ſlight ſickneſs, and without notice. Whilſt the horſes are abſent, the poultry will always watch the opportunity of examining the mangers, where they leave both dung and feathers, which ought ever to be carefully ſwept away, previous to feeding the horſes. Horſes drinking at ponds will often ſuck in a variety of filth and vermin. The ſigns of having ſwallowed leeches, or other vermin, are, hanging the head to the ground, and a diſcharge of impure ſaliva, ſometimes mixed with blood. Give a pint of ſweet oil warmed, with a glaſs of brandy, and a drachm of ground ginger. Scalded bran and gruel. The oil may be repeated if needful. Mild doſe of aloes and rhubarb, with one ounce diapente, waſhed down with warm ale.

When any conſiderable quantity of fowls dung and feathers have been ſwallowed, the horſe will loſe his appetite, ſwell in his body, and void fœtid, ſlimy matter from his fundament. The ſame medicines and treatment, with the addition of honey to the oil. Walking exerciſe, the horſe clothed. Sow thiſtle dried and powdered, ſmallage-ſeed bruiſed, marjoram, and the aſhes of the root, leaves, and fruit of briony, were the ſpecifics of former times.

HERBER. A *French* word uſed by the farriers, importing the following application:

For ſome diſeaſes, ſuch as thoſe of the head and the anticor, they put into a horſe's counter a piece of hellebore-root, which makes it ſwell and ſuppurate.

HERN OR HERON. A large wild water-fowl, with a long neck and bill, that flies high, and feeds upon fiſh.

A hern at ſiege, is a hern ſtanding at the water-ſide, and watching for prey.

HERN-SHAW. } A place where herns breed.
HERNERY. }

HIDE-BOUND. A diſtemper in horſes, where the ſkin ſticks ſo faſt to the back and ribs, that you cannot pull it from the fleſh, with your hand.

This proceeds from ſeveral cauſes; ſometimes from poverty, and want of good ordering; ſometimes by being over-heated with hard riding, and careleſsly letting him ſtand in the wet and rain; ſometimes it proceeds from foul and corrupted blood, which dries up the fleſh, which wanting its natural courſe, cauſeth this ſhrinking of the ſkin together, that makes him have a great

a great, ſhrivelled, and ſhrunk-up belly to his flanks, cauſing his hair to ſtart, and his legs to ſwell, &c.

Hard uſage and bad keeping are the moſt general cauſes, when it is an original diſtemper; but it is for the moſt part a ſymptom attending ſome other diſeaſe, the hide-bound horſe is ſaid by many to be cheſt-foundered or b dy-foundered.

As to the cure, if it is a ſymptom attending another diſeaſe, its remedy is the removal of the diſeaſe on which it depends. In general it requires a cooling laxative diet.

Mr. LAWRENCE ſays that the cure is immediate graſs; or, good ſtable care with cloathing, plenty of friction, and gentle walking exerciſe, with the precaution of not over-feeding at firſt. Carrots, boiled barley, and maſhes. One moderate bleeding, or inſtead, what ſometimes is very ſucceſsful, one rowel. The mildeſt alterative powder, a fortnight, then a doſe of aloetic phyſic. The complaint neglected will degenerate into a ſurfeit.

HIDE-BOUND IN ASSES:

Let blood under the tail, and rub it with bay ſalt; then bruiſe and boil a handful of fennel roots in new wort, with an ounce of lupines, or grey peaſe, and as much chamomile. Give a pint at a time morning and evening.

HIDE-BOUND IN CATTLE:

Bleed them in the neck-vein; then take of rue, hyſſop, ſage, featherfew, ſouthernwood, roſemary, every one of theſe herbs a handful; chop and grind theſe together; then take a quart of ſtrong ale or beer, and put to the herbs, and ſtir them together: then ſtrain the herbs as well as poſſibly you can from the ale; and then take long pepper, fenugreek, turmeric, anniſeeds, and liquorice-powder; make all theſe into powder, and take two penny-worth of ſallad-oil; mix all theſe with the juice of the herbs and ale, make them milk-warm, and ſo give it to the beaſt; and, if they be weak and far ſpent, then you muſt cut them in the dew-lap, and put in ſome bear's-foot, or ſpear-graſs, with ſalt and butter, and they will mend preſently.

HIGH BEARING COCK. A term uſed with reſpect to fighting cocks; which ſignifies one that is larger than the cock he fights with; as a low bearing cock, is one over-matched for height.

HIND (among Hunters) a female ſtag, ſo called in the third year of its age. In the ſecond year ſhe is called a hearſe or brock's ſiſter: the firſt year a calf.

HIND CALF. A male hart, or hind of the firſt year. She fawns in *April* and *May*.

HIND-HAND. *See* HAND.

HIP. *See* HAUNCH.

HIP-SHOT. A horſe is ſaid to be ſuch when he has ſprained his haunches or hips, ſo as to relaxate the ligaments that keep the bone in its due place.

HIP-SHOT is when the hip-bone of an horſe is removed out of its place; this happens to a horſe many ways; by a wrench, ſtroke, or ſlip, ſtrain, ſliding, or falling.

The ſigns to know it, are, the horſe will halt, and go ſideling, and the fore-hip will fall lower than the other; may, in time, the fleſh will conſume away; ſo that if it be let alone too long, it will never be cured. *See* STRAINS.

HOBBY. The hobby is a hawk of the lure, and not of the fiſt; is a high flier, and is, in every reſpect, like the ſaker, but that ſhe is a much leſs bird.

The hobby hath a blue beak, but the ſeer thereof, and legs, are yellow; the crinets or little feathers under her eye are very black; the top of her head is betwixt black and yellow, and ſhe hath two white ſeams on her neck, the plumes under the gorge, and about the brows are reddiſh without ſpot or drop, the breaſt feathers for the moſt part brown, yet interſperſed with white ſpots; her back, train and wings are black aloft, having no great ſcales upon the legs, unleſs it be a few beginning behind; the three ſtretchers and pounces are very large with reſpect to her ſhort legs; her brail feathers are tinctured between red and black; the pendant ones, or thoſe behind the thigh, of a ruſty, ſmoaky hue.

HOG-STEER (amongſt Hunters) a wild boar three years old.

HOLD. As a mare holds. *See* RETAIN.

HOOF OF A HORSE, is all the horn that appears when his foot is ſet to the ground; the hoof ſhould be of a figure very near round, and not longiſh, eſpecially towards the heel, for long feet are worth nothing.

The horn of the hoof ſhould be ſolid, tough, high, ſmooth, without any circles, ſomewhat ſhining, and of a dark colour, for the white is commonly brittle, and may be known by many pieces being broke from the horn round the foot: to be excellent, the horn ſhould be of the colour of a deer's hoof, and the whole foot round, but a little larger below than above.

The hoofs of a horſe are either perfect or imperfect; the former, but now deſcribed, is ſo diſpoſed, that the horſe may tread more on the toe than the heel, being alſo upright, and ſomewhat hollow on the inſide.

1. As for the imperfect hoof, it is that which wants any of the aforementioned qualities, particularly if it be not round, but broad, and ſpreading out of the ſides and quarters; that horſe for the moſt part has narrow heels, and in proceſs of time, will be flat-hooſed, neither will he carry a ſhoe long, or travel far, but ſoon ſurbate; and by treading more upon the heels than on the toes, he will go low on the paſterns, ſo that his feet, through weakneſs become ſubject to falſe quarters, gravelling, &c.

2. Others are rugged, or brittle-hoofed: when the hoof is not ſmooth, and full of circles like ram's horns, it is not only unſeemly to the eye, but even a ſign that the foot is in no good temper, but too hot and dry.

3. Some hoofs are long, which cauſe the horſe to tread all upon the heels, to go low in the paſterns, and by that means to breed wind-galls.

4. There are ſome crooked hoofs, broad on the outſides,

ſides, and narrow on the inſide, whereby the horſe is ſplay-footed; this will oblige him to tread more inward than outward, and go ſo cloſe with his joints together, that he cannot well travel without interfering, or perhaps ſtriking one leg ſo hard againſt the other as to become lame; but if it be broad within, and narrow without, that is not hurtful, yet will occaſion the horſe's gravelling more on the outſide than the inſide.

5. Others have flat hoofs, and not hollow within, which give riſe to the inconveniencies above ſpecified in the firſt ſort of imperfect hoofs; but if it be too hollow, it will dry the faſter, and make him hoof-bound, ſince the too hollow hoof is a ſtraight, narrow one, and grows upright; for though the horſe treads upright, and not on his heels, yet ſuch kind of hoofs will dry too faſt, if not continually ſtopped.

6. When the fruſh is broad, the heels will be weak, and ſo ſoft that you may almoſt bend them together, then he will never tread boldly on the ſtones or hard ground.

7. Some have narrow heels; they are tendereſt; that at laſt the horſe will grow to be hoof-bound. *See* SHOEING.

HOOF BONY, is a round bony ſwelling, growing upon the very top of a horſe's hoof, and always is cauſed by ſome blow or bruiſe, or by bruiſing himſelf in his ſtall, by endeavouring to ſtrike at a horſe that ſtands next him, and ſo ſtrikes againſt the bar that parts them.

The cure is, firſt to digeſt the ſwelling, either with rotten litter, or hay boiled in old urine, or elſe with a plaiſter of wine-lees and wheaten flour boiled together to ripen it and bring it to a ſuppuration, or diſſolve the tumour.

But if it comes to a head, lance it in the loweſt part of the ſoftneſs, with a thin hot iron to let out the matter.

Tent it with turpentine, deer's ſuet and wax, of each equal quantities melted together, laying a plaiſter of the ſame ſalve over it, to keep in the tent till it be thoroughly well.

HOOF-BOUND IN A HORSE, is a ſhrinking of the hoof at the top, and at the heel, which makes the ſkin ſtart above the hoof and ſo grow over it.

It may happen to a horſe divers ways; either by keeping him too dry in the ſtable, by ſtraight ſhoeing; or elſe by ſome unnatural heat after foundering.

The ſigns of it are, he will halt much; his hoofs will be hot, and if you knock them with a hammer, they will ſound hollow like an empty bottle.

As for the cure, that being the proper buſineſs of the farrier, I ſhall omit to preſcribe for it here.

HOOF-BRITTLE. An infirmity in horſes, proceeding either naturally or accidentally; naturally from the fire or dam; accidentally from a ſurfeit, that falls down into their feet; or elſe from the horſe's having been formerly foundered.

For the cure, take unwrought wax, turpentine, ſheep's ſuet, and hog's greaſe, of each four ounces; ſallad oil, a quarter of a pint, and of dog's greaſe, half a pound; boil them all together, and keep them in a gally-pot for uſe.

With this anoint the hoof well for two or three days, eſpecially at the ſetting on of the hair, and ſtop them with cow-dung and hog's-greaſe melted together.

HOOF-CAST, OR, CASTING OF THE HOOF, is, when the coffin falls clean away from a horſe's foot.

HOOF-SWELLED. An infirmity that ſometimes happens to young horſes by being over-ridden, or too hard wrought, which cauſes them to ſwell in that part, by reaſon of the blood falling down and ſettling there, which, if not ſpeedily removed, will beget a wet ſpavin.

It proceeds from ſome founder, prick, or ſlap, breaking on the top round about the coronet, which in time cauſes it to fall off.

For the cure: Take the ſtrongeſt aqua-fortis you can get, and firſt file or draw away the old hoof ſomewhat near, with a file, or drawing-iron; then touch the hoof, ſo prepared, three or four dreſſings or more, with the aqua-fortis, and anoint the foot with an ointment, made of one pound of hog's-greaſe, patch-greaſe three quarters of a pound; *Venice* turpentine, five ounces; new wax, three ounces, and ſallad oil, three ounces; all melted together over the fire: the coffin of the foot up to the top, being anointed with this, a new hoof will grow on it.

HOOF LOOSENED, is an infirmity in a horſe; it is a diſſolution or dividing of the horn or coffin of his hoof from the fleſh, at the ſetting on of the coronet.

Now if the paring be round about the coronet, it proceeds from his being foundered; if in part, then by a prick of ſome channel-nail, quitter-bone, retreat, gravelling, cloying, or the like.

When the hoof is looſened by foundering, it will break firſt in the fore part of the coronet, right againſt the toes, becauſe the humours alſo are diſpoſed to deſcend towards the toe.

But if it proceeds from pricking, gravelling, and the like, then the hoof will looſen round about equally at firſt; but if it be cauſed by a quitter-bone, or hurt upon the coronet, it will break right above the grieved part, and is very rarely known to go any farther: as for the cure of the former, they are properly the buſineſs of a farrier.

HOOK. *See* ANGLING, FISHING, &c.

HORN. *See* HOOF.

HORN. To give a ſtroke with the horn, is to bleed a horſe in the roof of the mouth, with the horn of a ſtag or roe-buck, the tip and end of which is ſo ſharp and pointed, as to perform the office of a lancet.

We ſtrike with the horn in the middle of the fourth notch or edge of the upper jaw.

HORNED CATTLE, AND THE PROPER TREATMENT OF COWS AND CALVES.

The Sturdy, or Turning-Evil. *See* STAGGERS IN HORSES.

Foul in the Foot, ariſes from want of cleanlineſs. Prevent by conſtant attention. For cure, cleanſe with bran

bran and water boiled, and lather of black ſoap. Uſe BRACKEN's Fiſtula-water.

Garget in the Maw, from ſwallowing crabs, acorns, *&c. See the ſame in* HORSES.

Scouring in Cows. Dr. DOWNING's preſcriptions in this caſe, of turpentine, pomegranate powder, pipe-clay, oak-bark, verjuice, *&c.* appear very dangerous and likely to lock up the offending matter in the inteſtines. This *diarhœa* ariſes from various cauſes, to wit, change of diet, the ſolution of a cold, particularly after calving, or in travel acroſs the country; laſtly, it may be a ſymptom of rot, either from bad keep, or conſtitutional; this has been ſometimes diſcovered by the hair pulling off, as from a glandered horſe. Take it in time, and allow comfortable maſhes with warm, dry, and generous keep. *See the* DISEASE IN HORSES. It is called *the Rot*, in the North.

The Hoaſe, or Chronic Cough. This in cows is often incurable. It uſually proceeds from cold taken in calving, and cold and wet winter lying. For palliation, or cure, *See* BROKEN WIND IN HORSES.

Loſs of the Cud, or Quid. By reading the ſtrange account of this indiſpoſition in the old writers, one is led to ſuppoſe that the beaſt, through careleſſneſs, drops ſomething from its mouth, like a quid of tobacco, and lies down to mourn the loſs of it: their remedies were equally ſatisfactory. You are directed to take yeaſt, clay, piſs, ſalt, and the ſlaver of another beaſt, with which a new quid, or ball is to be made for the patient.

The real cauſe, and remedy for this diſorder, are as follow: Cattle which ruminate, or belch up their food, for maſtication, are provided by nature with four ſtomachs; of theſe the *rumen*, or cud-bag, which receives the provender, is conſtructed with certain fleſhy fibres, or contracting muſcles, which by drawing and purſing it up, enable it to throw into the gullet and mouth the crude aliment to be chewed over again. The defect exiſts in the laxity and weakneſs of thoſe contracting muſcles, and their conſequent inability to expel the food for the purpoſe of rumination. This weakneſs may ariſe from various cauſes. The intention of cure is to brace the fibres and ſtrengthen the ſyſtem. Begin with warm maſhes of bran and ground oats. Give from four to ſix drachms, according to the ſize and ſtrength of the beaſt, of the fineſt aloes and rhubarb, equal quantities; ſalt of tartar, half an ounce; anniſeeds powdered, one ounce; either in gruel, or beer, warm. Good ſweet hay, ſmall quantities at a time. In two or three days, bark and gentian, half an ounce each; ground ginger a tea-ſpoon full, in warm ale, moderately ſweetened, twice a day, to be continued awhile; or, occaſionally a decoction of horehound, chamomile, and *caudus*, ſweetened: the very rough aſtringents, ſuch as verjuice, oil of vitriol, alum, &c. uſed by cow-leaches in this caſe, are highly improper, and ſometimes have fatal effects. CLARKE relates an inſtance of a horſe being killed by a draught of vinegar.

Red Water, or Bloody Urine, or Foul Water, in Cows. Opium, ſixty grains; with or without as much ruſt of iron; or thirty grains vitriol of iron to be given twice a day, in a ball mixed with flour and water, and diſſolved in warm ale: corn twice a day, and cover at night, if cold weather. *Zoonomia*, Vol. II. p. 69.

Gorged, or Hoven, i. e. ſwelled with over-feeding, either with green or dry food. Bleed from three pints to four, and drive about moderately. The caſe being ſlight, either of the following drenches may ſucceed, without paunching. Glauber or Epſom ſalts, two ounces; ſyrup of buckthorn, one ounce; nitre, one ounce; oil, half a pint; peppermint-water, a quarter pint; ground ginger, *q. s.* in three pints warm whey or gruel. Or, Dr. WHYTT's medicine, of *Edinburgh*, by which he ſaved eighteen hoven cows out of twenty. Gin, one pint, in the ſame quantity of water. When the affair appears dangerous, and the beaſt cannot ſtand, loſe no time, but perform the ſimple and eaſy operation of paunching; *viz.* make an inciſion with a ſharp knife, on the near ſide, about an inch and a quarter long, between the rib and hip-bone, three inches below the bones of the loin. In caſe of pregnancy great care muſt be taken. The wound may afterwards be healed with tar and ſpirits, or Friar's balſam. A farrier, in *Suſſex*, lately took from the body of a cow near two buſhels of indigeſted hay. Some inſert a tube into the wound to conduct forth the impriſoned air; and Profeſſor MUNRO of *Edinburgh* invented a flexile one, to be paſſed through the mouth into the ſtomach of either oxen or ſheep. This tube may be left in the ſtomach of the animal any length of time, being no hindrance to breathing; or any medicine may be injected through it. It is held a ſafer method than inciſion by Dr. M.

Epidemics in Cattle; Peſt, Murrain, or Plague. See HORSES. Dr. LAYARD, our beſt, or rather only author on this ſubject, publiſhed his book from *Rivington's* 1757. The doctor defines the diſtemper as a peſtilential fever *ſui generis*, peculiar to animals with horns, but uninfectious to all others.

The following is extracted from *Zoonomia*. The *Peſtis Vaccina*, or diſorder among the cows, ſeems to have been a contagious fever with great arterial debility, as in ſome of them, in the latter ſtage of the diſeaſe, an *emphyſema* could often be felt in ſome parts, which evinced a conſiderable progreſs of gangrene beneath the ſkin. In the ſenſitive, inirritated fevers of theſe animals, ſuppoſe about ſixty grains of opium, with two ounces of extract of oak-bark, every ſix hours, would ſupply them with an efficacious medicine, to which might be added thirty grains vitriol of iron, if any tendency to bloody urine. To prevent the infection from ſpreading, an order from government, forbidding the removal of any cattle found within five miles of the place ſuppoſed to be infected for a few days; until the aſcertainment of the exiſtence of the contagion by a medical committee: That being aſcertained, all the cattle within five miles of the place to be immediately ſlaughtered, and conſumed within the circumſcribed diſtrict; the hides to be put into lime-water before proper inſpectors.

MILCH COWS AND CALVES.

Swelled Udder. Some cows are liable to have the udder exceedingly ſwelled and inflamed, a few days before calving. Milk the cow twice a day, and bathe the parts thoroughly with camphorated ſpirits. It is

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an error to ſuppoſe milking a cow before calving is injurious.

Chafing. Cows which are cat-hammed, and go cloſe behind, are apt to chafe the udder and thighs. Waſh twice a day with warm ſoap ſuds, and bathe with *aqua vegeto* and camphorated ſpirits mixed: or, for want of thoſe, brandy alone.

Chapped Teats. Were the conſumers of milk to witneſs the filth which is mixed with it, in this caſe, they would think leſs of the trouble of prevention. Inſtead of ſuppling the teat with warm milk as uſual, which moſt probably goes, filth and all into the pan, order a bowl of warm water for the purpoſe. After milking, uſe the mixture ordered for chafing. Avoid all greaſy applications if poſſible; if not, uſe elder ointment, or gooſe-greaſe, with a little ceruſe mixed. In ſeven or eight days, the teats will be whole, and *cleanlineſs* may preſerve them ſo.

Cows are much more liable to danger in parturition, than other brute animals, and their bodies at that time are exceedingly acceſſible to the impreſſion of cold air. Warm ſhelter, if the weather be cold, or wet. Comfortable maſhes, with gruel, and a quart of warm ale. If cold be already taken, mix the ſize of a pigeon's egg of cordial ball, in the gruel; if that be not at hand, anniſeed, half an ounce, in powder; two tea ſpoons of powdered ginger; treacle, and the decoction of a handful of juniper berries. Keep the cow within till well.

Watch, and put the afterburden, or cleaning, out of the cow's reach, as their devouring it is ſometimes attended with nearly as bad effects as its retention. The beaſt more uſually lingers a great number of months. Symptoms, ſtaring of the hair, falling away of the fleſh, intermittent pulſe, ſhuddering, coldneſs of the ears, fetid breath, knots in the mouth, general languor and debility. The old leaches called this "wethering." This malady may be treated ſucceſsfully as follows: Warm lodging. Gentle currying and bruſhing, twice a day, permitting the cow to walk about in the day time, if fine. Good hay, maſhes, cordial, *&c.* as before. In the morning faſting, the following mixture, in three pints ſtrong decoction of pennyroyal, gruel, or ale: *Elixir Proprietatis*, compound tincture of caſtor, and *Spiritus Volatilis Aromaticus*, of each a table ſpoonful, or more, three ſucceſſive mornings. Should the beaſt be coſtive, a ſingle drachm or two of the fineſt aloes, in powder, may be added to one of the drinks. Repeat occaſionally, if needful. The cow to be ſucked dry, not milked.

For a violent puerperal fever, called by DOWNING, *dropping* after calving, he adviſes the following medicine, in a decoction of fever-few, balm, and chamomile, to be repeated every twelve hours: Nitre powdered, two ounces; rub it in a mortar, with a tea ſpoonful of oil of vitriol; then add valerian, one ounce and half; ſnake-root, one ounce; treacle, half a pound. A pint of the decoction of the herbs, ſweetened, every two hours. Keep the cow warm with proper covering. Back-rake, if needful. Place her with the fore-parts elevated. Thick gruel or milk-pottage. Conſtant attendance night and day.

Inward Bruiſes, from extracting the Calf. Spermaceti, and Iriſh ſlate, two ounces each; Caſtile ſoap, and diapente, one ounce each; in a quart of warm ale, daily. Or, the ſame made into balls with Venice turpentine. Warm water and maſhes.

Want of Milk. The drink and treatment recommended in colds. Or, fennel, anniſeeds, and grains of paradiſe, two or three ounces, in warm ale, ſweetened with Spaniſh juice; repeat.

Veterinary Obſtetrics. The diſciples of MAURICEAU, BRACKEN, SMELLIE, and DENMAN, need not be at a loſs here to direct the operations of the leach or hind; analogy is a ſufficient guide. Cows, particularly the ſhort-horned ſpecies, often need the aſſiſtance of the accoucheur. The natural preſentation of the calf, is with its head and fore-feet, the noſe between the feet, and the back upwards. DOWNING enumerates ſeven preternatural poſitions: namely, 1ſt. Reverſe preſentation, or tail firſt. 2d. Fore-feet, no head appearing. 3d. Sidewiſe, belly upwards, head reverſed over one ſhoulder, legs appearing 4th. Fore-feet, with head under the briſket. 5th. Head alone, or one fore-leg only, with it. 6th. Head and one leg, or head alone. 7th. Calf lying on its back, its four legs folded nearly together, and cloſe up to the cow's back, the head appearing, or doubled back, even with the ribs, on one ſide or other; one hind-leg, perhaps, preſenting.

General Rules. Timely aſſiſtance, before the cow is exhauſted. Extraction never to be attempted in an improper poſition. Supple the hand and arm with warm water and freſh lard. Examination beſt made, the cow ſtanding, and in the interval of pains. In pulling at the feet, incloſe the claws in the hand, that the horn may not bruiſe the cow. Navel ſtring burſting, and the uſual flux of blood, of no conſequence. Inſtruments to be uſed only in the laſt reſort, and by experienced and ſteady perſons only. The proper hook, is of hard iron, four inches long, with a loop for the cord at the ſtraight end.

In a Natural Poſition, if the cow ſhould want help, the poſition of the calf may be aſcertained after the waters have been ſeen. A cord ought to be in readineſs, to attach to the fore-legs of the calf, in order to aſſiſt each natural exertion. The head to be kept clear of obſtruction.

Preternatural Poſition, No. 1, as above. No attempt to turn the calf (this poſition being favourable for extraction) but uſe expedition for fear it be ſuffocated. Preſs the haunches back with the palm of the hand, take hold of the bend of the hock of one leg, pull at it, and reach the foot; both feet may thus be brought forth.—No. 2. Reduce the head to its proper ſituation, between the fore legs, either by hold of the noſe, or jaw bone. A long arm is needful, which muſt be kept to the full extent in the body, that inſtant advantage may be taken of every throe, the fingers being properly fixed.—No. 3. Gently move the calf back, and bring the head forth to the legs.—No. 4. Puſh the calf back to find the head; pull at the noſe: this requires addreſs, but it is uſeleſs to employ force, until the head be in its proper place.—No 5. and 6. Puſh the calf back againſt the ſhoulders and briſket; the feet will be found folded under the belly, bring the feet forward one at a

time, the hand being gently placed on the bend of the knee. Should the head be too much ſwelled and bruiſed, to be returned, it muſt be ſkinned and amputated. Diſſect in a ſtraight line, from the poll to the noſe, force the ſkin back over the firſt joint of the neck, divide the head from the body, puſhing the latter back to obtain hold of the knees. The looſe ſkin muſt be previouſly wrapped over the ragged bone, and an aſſiſtant ſhould have faſt hold, in order to guide it clear of the haunch-bones of the cow; ſhould it hitch there, put back inſtantly—No. 7. If one hind-leg appear, put it back; the calf cannot be brought forth with a hinder and fore-leg together, and the difference between the knee and hock, will be immediately diſcovered. The head being doubled back, muſt of courſe be reduced to its proper place. The cow being ſtrong and quiet, the buſineſs may be effected with care and patience; but ſhould the hook be poſitively neceſſary, hold muſt be taken, either in the ſockets of the eyes, cavity of the ears, or in the jaw. Keep ſteady until fair hold be taken. The caſe of *Dropſy* in the calf, will be ſufficiently apparent by its preternatural ſize; uſe the knife carefully, ſhould that be neceſſary, to pierce the belly of the calf. For theſe rules, I repeat, I am obliged to Mr. DOWNING, to whoſe profeſſional abilities, I think they do great credit.

Suckling. The common error of the nurſery univerſally prevails in the calf-pen. Calves are either allowed too much milk, or their ſtomachs are overcharged with too great a quantity at a time; hence their digeſtive faculty is overpowered, thrift is impeded, and a ſtate of diſeaſe induced, the moſt common ſymptoms of which are, alternate purging and coſtiveneſs. Perhaps twice a day is too ſeldom, and it would probably pay the extra trouble, to ſuckle three times. The calf kept ſo many hours from the teat, often, in winter-time, ſixteen, greedily ſwallows an immenſe quantity of milk, ſinks down to ſleep, wakes with the diſagreeable conſequences of an over-loaded ſtomach, belching up a ſcalding acid liquor, and remains reſtleſs and bleating for a freſh ſupply, and a repetition of the error. Many people milk the cow firſt, which is bad practice, the laſt milk being the richeſt, and not ſo proper for the calf. We have here the reaſons for the frequent ſourneſs of veal, and for its producing curds and whey, inſtead of rich and wholeſome gravy.

Coſtiveneſs in Calves. Take the chalk from them. Give half an ounce, to an ounce of magneſia, with the ſame quantity of anniſeeds powdered in a pint of warm gruel, the powders being well mixed in it. This may be given occaſionally, obſtruction being a great enemy to thrift. OR. Rhubarb and magneſia may be given, equal quantities. I have repeatedly ſeen the good effects of this practice.

Purging Calf. I muſt differ totally from Dr. DOWNING in this caſe, for reaſons already aſſigned. He adviſes for a doſe, chalk, pomegranate, bole, and alum, to the amount of four or five ounces. I have no idea that articles of that claſs, can do any thing but miſchief to a ſucking animal. I would recommend rhubarb, and a table ſpoonful or two of peppermint water, in warm ale. Afterwards if neceſſary, two drachms of diaſcordium, in ale, for two or three days. Rice gruel. This failing to have an immediate good effect, the butcher's knife is the moſt profitable remedy.

HORNS OF A DEER CASTING, is a ſingular phænomenon, the true reaſon of which ſeems to be a ſtoppage of the circulation; ſo that being deprived of the nouriſhing juice, they fall off much in the ſame manner as the leaves of the trees do in autumn. About ten days after the horns are caſt, the new ones begin to appear: theſe at firſt are ſoft and hairy, but they afterwards grow hard, and the creature rubs off the hair.

HORN-GELT. A tax within the bounds of a foreſt, for all manner of horned beaſts.

HORSE. A four-footed animal of great uſe to mankind, eſpecially in the country; this creature being by nature valiant, ſtrong, and nimble; above all other beaſts, moſt able and apt to endure the extremeſt labours, the even quality of his compoſition being ſuch, that neither extreme heat dries up his ſtrength, nor the violence of the cold freezes the warm temper of his moving ſpirits: he is moſt gentle and loving to man, apt to be taught, and not forgetful when an impreſſion is fixed in his brain, being watchful above all other beaſts, and will endure his labour with an empty ſtomach. He is naturally given to cleanlineſs, and has an excellent ſcent, even not ſo much as to offend any man with all his ill ſavours. For the different ſymptoms of ſickneſs, *ſee* SICKNESS OF HORSES.

Now for his ſhape in general; the uſual character is, that he muſt have the eyes and joints of an ox, the ſtrength and foot of a mule, the hoofs and thighs of an aſs, the throat and neck of a wolf, the ear and tail of a fox, the breaſt and hair of a woman, the boldneſs of a lion, the ſhape and quick ſightedneſs of a ſerpent, the face of a cat, the lightneſs and nimbleneſs of a hare, a high pace, a deliberate trot, a pleaſant gallop, a ſwift running, a rebounding leap, and to be preſent and quick in hand.

As to his colours, the reader is referred to the article of COLOURS OF A HORSE; only it is fit to mention here, that the beſt colours are the brown-bay, dapple-grey, roan, bright-bay, black with a white near foot behind, white fore-foot before, white ſtar, cheſnut or ſorrel with any of theſe marks, or dun with a black liſt.

But to return to the more particular parts of a horſe, and ſo ſet them in view, we ſhall preſent the reader with a general deſcription of the external conformation of the horſe, grounded upon juſt principles of theory, and confirmed by experience. By a general deſcription we would be underſtood to intend ſuch an one, as is equally applicable to the racer, and the cart-horſe. In laying down certain rules, as the ſtandard of beauty and proportion in horſes, human judgment has, no doubt, been guided by the obſervation of the beſt natural models; theſe have been originally furniſhed by the courſers of Arabia, according to all hiſtory and tradition, the oldeſt breed in the world, and proved, from all experience, to be the beſt ſhaped.

The head of a horſe ſhould be void of fleſh, and for length and ſize, appear to hold fair proportion with the

ſize

ſize of his body; his eye full, and ſomewhat prominent; eye-lids thin and dry; ears thin, narrow, erect, of middling length, and not diſtant from each other; forehead flat, not too large or ſquare, and running nearly in a ſtraight line, to the muzzle, which ſhould be ſmall and fine; noſtrils capacious; lips thin; mouth of ſufficient depth, and the tongue not too large; the jaw-bones wide at top, where they join the neck; the head not abruptly affixed to the extremity of the neck, but with a moderate curve and tapering of the latter.

The neck muſt be of moderate, not too great length, nor too thick and groſs on the upper part, nor too large and deep, but riſing from the withers or forehand, and afterwards declining and tapering at the extremity, it will form ſomewhat of an arch; underneath, the neck ſhould be ſtraight from the cheſt, and by no means convex, or bellying out.

The ſhoulders capacious, and of large extent, ſo as to appear the moſt conſpicuous part of the body, but without being loaded with fleſh; they ſhould reach fairly to the top of the withers, which muſt be well raiſed; the cheſt ſhould be ſufficiently full, not narrow or pinched.

The body deep and ſubſtantial; back a plane of good width, but handſomely rounded; back-bone ſtraight, or with a trifling inclination, and not too ſhort; loins wide, and the muſcles of the reins, or fillets, full, and ſwelling on each ſide the back-bone; the ſpace ſufficient between the ribs and hip-bones, the bones themſelves round, and the buttocks deep and oval; the rump level with, or not too much elevated above, the height of the withers; the croup muſt have reaſonable ſpace, and not ſink too ſuddenly, in which caſe, the tail would be ſet on too low, which ought to be nearly on a level with the back.

The hinder quarters ſhould ſpread to a wider extent than the fore-parts, and the hind-feet ſtand farther aſunder than thoſe before; the thighs ſhould be ſtraight, large, muſcular, and of conſiderable length; the hock wide and clean, the ſhank not too long, but flat, and of ſufficient ſubſtance, its ſinew large and diſtinct, the fetlocks long; the hocks ſhould form an angle, of ſuch extent, as to place the feet immediately under the flanks. The fore-arms, like the thighs, ſhould be large, muſcular, and of good length, the elbows not turning outwards; the knees large and lean; the ſhank, or cannon-bone, flat, ſtrong, and not too long; the tendon large; the fore-arm and ſhank, muſt form nearly a ſtraight line: fetlock-joints large and clean; paſterns inclining to a certain degree, not too long, but large in proportion to their length; the coronary rings not thick, or ſwelled, but clean, dry, and hairy; the feet neither too high, nor too flat, and of ſize apparently a ſufficient baſe for the weight they have to ſuſtain; hoofs of colour dark and ſhining, without ſeams or wrinkles, tough and ſtrong, not hard like oak; foot internally concave, ſoal hard, but not ſhrunk, heels wide, and of middling height; frog not too large or fleſhy, but tough and ſound; the feet of equal ſize, ſhould ſtand exactly parallel, ſo that the front or toe incline neither inward nor outward; the fore-feet ſhould ſtand perpendicular to the cheſt, not too much under it, and they ſhould be leſs wide apart than the fore-arms; the legs ſhould not be loaded with hair.

The age of a horſe, it is ſufficiently well known, is only determinable with preciſion by his teeth; and that rule fails after a certain period, and is ſometimes equivocal and uncertain, even within that peroid. A horſe has forty teeth; namely, twenty-four double teeth or grinders, four tuſhes, or ſingle teeth, and twelve front teeth, or gatherers. Mares have no tuſhes, in general. The mark, which diſcovers the age, is to be found in the front teeth, next the tuſhes. In a few weeks, with ſome, the foal's twelve fore teeth begin to ſhoot; theſe are ſhort, round, white, and eaſily diſtinguiſhable from the adult or horſe's teeth, with which afterwards they come to be mixed. At ſome period between two and three years old, the colt changes his teeth; that is to ſay, he ſheds the four middle fore teeth, two above, and two below, which are ſome time after replaced with horſes teeth. After three years old, two others are changed, one on each ſide the former; he has then eight colt's, and four horſe's teeth. After four years old, he cuts four new teeth, one on each ſide thoſe laſt replaced, and has at that age, eight horſe's, and four foal's teeth. Theſe laſt new teeth are ſlow growers, compared with the preceding; they are the corner teeth, next the tuſhes, are called pincers, and are thoſe which bear the mark; this mark conſiſts in the tooth being hollow, and in the cavity bearing a black ſpot, reſembling the eye of a bean. At four years and a half old, theſe mark teeth are juſt viſible above the gum, and the cavity is very conſpicuous. At five years old, the horſe ſheds his remaining four colt's teeth, and his tuſhes appear. At ſix, his tuſhes are up, and appear white, ſmall, and ſharp, near about which, is obſervable a ſmall circle of young growing fleſh; the horſe's mouth is now complete, and the black mark has arrived at, or very near the upper extremity of the corner teeth. At ſeven, the two middle teeth fill up. Between the ſeventh and eighth year, all the teeth are filled up, the black mark hath vaniſhed, and the horſe is then ſaid to be aged, and his mouth full.

From that time forward, the age of the horſe can only be gueſſed at from certain indications; but theſe gueſſes are uſually made with conſiderable accuracy by experienced people. If his teeth ſhut cloſe, and meet even, are tolerably white, not over long, and his gums appear plump, you may conclude he is not yet nine years old. At that age, and as he advances, his teeth become yellow and foul, and appear to lengthen, from the ſhrinking and receding of the gums. The tuſhes are blunt at nine; but at ten years old, the cavity or channel in the upper tuſhes, until that period to be felt by the finger, are intirely filled up. At eleven, the teeth will be very long, black, and foul: but will generally meet even; at twelve his upper-jaw teeth will overhang the nether; at thirteen and upwards, his tuſhes will be either worn to the ſtumps, or long, black, and foul, like thoſe of an old boar. Beſides thoſe exhibited by the mouth, nature ever furniſhes a variety of ſignals, denoting the approach of old age and decay, throughout the bodies of all animals. After a horſe has paſt his prime, a hollowneſs of his temples will be

perceived, his muſcles will be continually loſing ſomething of their plumpneſs, and his hair that gloſs and burniſh, which is the characteriſtick of youth and prime; it will look dead, faded, or entirely loſe its colour, in various parts. In proportion to the exceſs of theſe appearances, will be the horſe's age. For his quality, *ſee* VIGOUR. For the different parts of a horſe, *ſee* the article PARTS OF A HORSE.

There are many things relating to a horſe, and very neceſſary to be known, which will be found under their proper articles; only there are a few which are not ſo conveniently reducible under ſuch heads, which muſt have room here.

To begin with turning a horſe to graſs: you ought, eight or nine days before you do it, to take blood from him; next day after, give him the drink called diapente; and in a day or two after his drink, abate of his cloaths by degrees, before you turn him out, leſt by taking them off on a ſudden he ſhould take cold; and curry him not at all after his cloaths are taken off, but let him ſtand in his duſt, for that will keep him warm; neither is it proper to put him out till the middle of *May* at ſooneſt; for till that time graſs will not have bite enough; and let the day be warm, ſun-ſhine, and about ten o'clock, for horſes pampered in ſtables, and kept cloſe, will be very ſubject to take cold.

To take him up from graſs, he muſt be very dry, elſe he will be ſubject to be ſcabby; and that not later than *Bartholomew-tide*, when the ſeaſon begins to let cold dews fall, that cauſe much harm to your horſe; and then alſo the heart of the graſs begins to fail, inſomuch, that the graſs which he then feeds upon, breeds no good nouriſhment, but groſs, phlegmatic, and cold humours, which putrify and corrupt the blood; alſo take him up very gently, for fear of melting his greaſe, his fat gotten at graſs being very tender: and a day or two after he is in the ſtable, let him be ſhod, let blood, and drenched, which will prevent the ſtaggers, yellows, and the like diſtempers, occaſioned by the gall and ſpleen, which the heart and ſtrength of the graſs, through the rankneſs of the blood, engender in the body.

But the curious, after they have taken the horſe into the ſtable, before they either bleed or drench him, in a hot, ſun-ſhining day, take him out into a convenient place, and there trim him; where taking ordinary waſhing ſoap, anoint his head and every part of him with it all over, taking care that none gets into his eyes and ears; then they waſh him very well all over with warm water, wiping him with a warm linen cloth, and afterwards rubbing him dry with woollen cloths; then ſoap him all over again, eſpecially his mane and tail, and waſh him very clean with black lye, with a wiſp or woollen cloth, and when they have ſufficiently cleanſed him, dry him as before, and leading him into the ſtable, let him be cleanſed with a clean, thin, ſoft cloth.

So much for turning in and out of graſs. There are two or three things more to be added, that are of ſome importance in reference to this noble creature; and the firſt is, to make a horſe follow his maſter, and to find him out and challenge him amongſt ever ſo many people.

Take a pound of oatmeal, to which put a quarter of a pound of honey, and half a pound of liquorice, make a little cake thereof, and put into your boſom next to your naked ſkin, then run and labour yourſelf till you ſweat, when ſo, rub all your ſweat upon your cake; then keep the horſe faſting a day and a night, and give it him to eat, which done, turn him looſe, and he ſhall not only follow you, but alſo hunt and ſeek you out when he has loſt you; and when he comes to you, ſpit in his mouth, anoint his tongue with your ſpittle, and thus doing, he will never forſake you.

Another thing is, to ſhew how to make a horſe look young: take a crooked iron, no bigger than a wheat corn, and having made it red hot, burn a little black hole in the tops of the two outermoſt teeth of each ſide the nether chap before, next to the tuſhes when the mark is worn out, then pick it with an awl blade, making the ſhell fine and thin: then with a ſharp ſcraping iron, make all his teeth white and clean; this done, take a fine lancet, and about the hollows of the horſe's eyes which are ſhrunk down, make a little hole only through the ſkin, and put in the quill of a raven or crow, and blow the ſkin full of wind; then take the quill out, lay your finger on the hole a little while, and the wind will ſtay in, and he will look as youthful as if he were but ſix years old.

This way of making a horſe look young, is by horſe-courſers called biſhoping, and is neceſſary to be known by countrymen and others, not to cheat others with, but to prevent their being cheated themſelves; and therefore they ſhould have great regard to the RULES FOR BUYING HORSES, which is an article by itſelf, and to which all perſons are referred.

HORSE, that is really Old, to make him ſeem Young, as practiſed by jockeys.

Rub his teeth with pumice-ſtone, and the powder of burnt alum; this will render them white; take a ſmall iron, with which, being crooked for that purpoſe, burn in the tops of the two foremoſt teeth ſmall holes, ſo big that a wheat corn may enter on each ſide of the nether jaw; and on the tuſhes do the like, fining them with a bodkin till the black ſcale come off, and the teeth in that place look brighter than in another; when done, if the pits above the eyes be hollow, with a ſharp penknife or lancet ſlit the ſkin, being before raiſed, and hollowing it as much as you can by working of your fingers, put into the ſlit a duck or crow quill, and blow them up one after another, that the hollowneſs may fill with wind; which, entering into the cavities of the ſkin, will, after having been ſtopped up for a time with a plaſter of diaculum or bees wax, fix there, till by ſweat or extraordinary labour it works out; if the temples are crooked with a ſign of age, lay to either of them a poultice of hemlock and chamomile fried in linſeed oil; and it will ſo far contract the blood to fill them, that for many days they will appear ſtraight: and then for the hoof, which in caſe of age will be ſeamed or rugged, take a raſp or file, and, having well ſmoothed it, anoint it well with oil of turpentine for a day or two, and it will look very comely; but in this caſe the horſe muſt be diſpoſed of within a week at the fartheſt, or elſe the defects will appear again.

HORSE ſubject to lie down in the water, how to remedy it.

In this caſe you muſt conſider the horſe to be of a hot conſtitution, begotten or produced under the fiery ſigns of Leo and Scorpio, or elſe much overheated with choler, and therefore ever deſirous to cool himſelf, and thereby rendered in a manner unſerviceable; which vice to remedy, ride him into the water up to the knees, and ſuffer him to lie down; then, having three or four ſtout fellows ready with boots on, let them ſeize his head, and hold it under water, whilſt another beats and belabours him; and this do till you find the horſe almoſt ſtifled; and, in repeating it three or four times, the terror of it will ſo work, that the horſe will fly from the water more than ever he coveted it, and hardly ſuffer himſelf to be watered, unleſs in a pail or trough. This likewiſe may be remedied by bleeding and purging your horſe ſpring and fall, whereby the humours that occaſion the extraordinary heat and diſorder may want whereon to feed or contract, loſing the power and force of inflaming his body, &c.

There may be other lawful occaſions, beſides ſervice of war, to prevent a horſe from neighing; for which end, take a liſt of woollen cloth, and tying it faſt in many folds about the midſt of his voice, or windpipe, and it will do, for it has been often tried and approved. *See* MARES, HORSE-FEEDER, TRAVELLING-HORSE, DRAUGHT-HORSE, STALLIONS, HORSE'S AGE, COLOURS OF A HORSE, COLT-TAMING, STUD, *&c.* You will likewiſe meet with the ſeveral diſeaſes incident to horſes, under their articles, together with the ſeveral methods and preſcriptions for the cures, too long to be here named. For his vices, and how they may be remedied, *ſee* VICES.

As for the ſize of horſes, perhaps ſixteen hands ought to be the extreme, for whatever purpoſe, either of ſaddle or draught. All poſſible advantages may be concentered within that compaſs, and numberleſs diſadvantages reſulting from over-ſize, avoided. It has been ſaid, that "a great, good horſe, will beat a little one;" and there is no doubt, but where the goodneſs, in all points, is equal, the largeſt muſt be the beſt; but we generally find, in all animals, that as they advance beyond the uſual ſtandard, they loſe in ſymmetry, in proportion as they gain in bulk. It is rare to ſee a man, of ſix feet ſix, well ſhaped. Among horſes, perhaps, the ſmalleſt ſize, or ponies, are, upon the average, of the trueſt make.

A hunter, or charger, ſhould be between fifteen hands, and fifteen three. It is obvious, that in the field, low horſes can never clear their leaps ſo well, or carry a man ſo gallantly over the country, as thoſe of a commanding ſize. The moſt advantageous height of a back, is between fourteen and fifteen hands one inch. A lady's horſe, either for road, or field, ſhould never exceed fifteen. The convenience of ponies and galloways, for the ſummer ſeaſon, and their inconvenience, in deep roads and dirty weather, are in the way of every body's obſervation.

It is a truth, like numberleſs others, much better known than practiſed, that horſes ſhould never be put to ſevere labour whilſt young. Our doing ſo much violence to their ſtrength, in this country, whilſt their ſinews are yet too flexible and tender, and have not acquired due ſubſtance and tenſity, is the occaſion of their growing old ſo ſoon, and becoming, at ſuch a premature period of their lives, totally unfit for any but the loweſt drudgery.

Horſes, for ſlow-draft (the leaſt injurious of all their labour) may be put to gentle work, in careful hands, even at two years old, without ſuſtaining any injury; and it is the cuſtom of the country: but great care ought to be taken, never to put them upon long and heavy jobs, or ſubject them to heats and colds, and piercing winds; and, in particular, not to ſtrain them at dead pulls; for amongſt an infinity of accidents, to which, in that green age, they are liable, hurts in the loins are to be apprehended, from which they never after recover. Every body will tell you, that road-horſes and hunters ſhould not be worked until five years old; and it is moſt true: the latter, indeed, ought not to endure many ſevere runs, the firſt ſeaſon. But it is not enough, that young horſes are not worked hard; that is to ſay, ridden faſt, or long journeys; for whatever bone they may have, no high weight ought to come upon their backs, until they have attained, at leaſt, five years growth. From the improvident cuſtom of over-weighting them too early, even if they are ridden ſlow, ariſe windgals, ſplents, ſpavins, weakneſs of the joints, and that common tribe of defects, which are the conſequence of over-ſtretched ligaments. *See* PARTS OF A HORSE.

HORSE-FEEDER. There are many obſervations to be made by one engaged in this office, in order to perform it well, eſpecially when he has the care of running horſes, but we ſhall only mention a few.

1. As to meat or drink, if there be any ſuch, or other nouriſhment that he knows good for a horſe, which the beaſt refuſes, you muſt not thruſt it violently upon him, but by gentle enticements win him thereto, tempting him when he is moſt hungry or moſt dry; if he get but a bit at a time, he will ſoon increaſe to a greater quantity.

Ever let him have leſs than he deſires; and that he may be brought the ſooner to it, mix the meat he loves beſt with that he loves worſt, till both be equally familiar, ſo ſhall he be a ſtranger to nothing that is good and wholeſome.

2. If he finds a horſe ſubject to ſtiffneſs and lameneſs, to the ſurbate, or to tenderneſs of feet, then he ſhould give him his heat upon ſmooth, carpet earth, or forbear ſtrong grounds, hard highways, croſs-ruts and furrows, till extremity compel him.

3. For the condition of a horſe's body, he muſt account the ſtrongeſt ſtate which is the higheſt and fulleſt of fleſh, ſo it be good, hard, without inward foulneſs, to be the beſt and moſt proper for the performing of matches: and herein you muſt conſider, firſt, the ſhape of a horſe's body, there being ſome that are round, plump, and cloſe knit together, which will appear fat and well ſhaped, when they are lean and in poverty; while others that are raw-boned, ſlender, and looſe knit, will appear lean and deformed, when they are fat, foul, and full of groſs humours.

So

So likewiſe for their inclinations; for ſome horſes at the firſt, feed outwardly, and carry a thick rib, when they are inwardly as lean as may be; whereas others appear lean to the eye, when they are only greaſe.

In which caſe the feeder has two helps to improve his knowledge, the outward and the inward one.

4. The firſt is, the outward handling and feeling the horſe's body all over his ribs, but particularly upon his ſhort and hindermoſt ribs, and if his fleſh generally handle ſoft and looſe, and the fingers ſink therein as in down, he is foul without all queſtion; but if it be hard and firm, and only ſoft upon the hindermoſt rib, he has greaſe and foul matter within him, which muſt be voided, whatever comes of it. And for the inward help, that is only ſharp exerciſe, and ſtrong ſcowering, the firſt to diſſolve, and the latter to bring it away.

5. It is the feeder's buſineſs to obſerve the horſe's ſtones, for if they hang downwards, or low from his body, he is out of luſt and heart, and is either ſick of greaſe or other foul humours; but in caſe they lie cloſe truſſed up, and hid in a ſmall room, then he is healthful, and in good plight.

6. As to his limbs, the feeder or groom muſt ever before he runs any match or heat, bathe his legs, from the knees and gambrels downwards, either with clarified dog's-greaſe, trotter-oil, or the beſt hog's-greaſe, and work it in well with his hands, not with fire, for what he gets not in the firſt night, will be got in the next morning, and what is not got in then, will be got in when he comes to uncloath at the end of the courſe; ſo that the ointment need be uſed but once, but the rubbing as often as there is opportunity.

7. The feeder may in any of the latter fortnights of a running horſe's feeding, if he finds him clear, and his greaſe conſumed, about ſix in the evening, give him water in a reaſonable quantity, made luke-warm, keeping him faſting an hour after: alſo, if through the unſeaſonableneſs of weather you cannot water him abroad, then at your watering hours you are to do it in the houſe, with warm water, and a handful of wheat-meal, bran, or oatmeal, finely powdered (which laſt is the beſt) put into the water, which is very wholeſome.

8. He muſt have ſpecial regard to all airing, breathings, and other exerciſes whatever; to the ſweating of the horſe, and the occaſion, as walking a foot-pace, ſtanding ſtill in the ſtable, and the like; this ſhews that the horſe is faint, foul fed, and wants exerciſe: but if upon good occaſions, as ſtrong heats, great labour, and the like, he ſweat, and it is a white froth like ſoap-ſuds, he is inwardly foul, and alſo wants exerciſe: again, if the ſweat be black, and as it were only water thrown upon him, without any frothineſs, then he is cleanſed, and in good luſt, and good caſe, and may be rid without any danger.

9. And laſtly, he ſhould obſerve his hair in general, but eſpecially on his neck, and thoſe parts that are uncovered, for if they lie ſleek, ſmooth, and cloſe, holding the beauty of their natural colour, the horſe is in good caſe; but if rough and ſtaring, or diſcoloured, he muſt be inwardly cold at heart, and wants both cloaths and warm keeping.

DRESSING A HORSE. Mr. LAWRENCE in his excellent treatiſe on horſes, gives the following extract from an old and experienced author. Having tied up the horſe's head, "take a curry-comb, and curry him all over his body, to raiſe the duſt, beginning firſt at his neck, holding the left cheek of the head-ſtall in your left hand, and curry him from the ſetting on of his head, all along his neck, to his ſhoulder, and ſo go all over his body to the buttocks, down to his cambrell-hough; then change your hands, and curry him before on his breaſt, and laying your right arm over his back, join your right ſide to his left, and curry him all under his belly, near his fore bowels, and ſo all over very well, from the knees and cambrell-houghs upwards: after that go to the far ſide, and do in like manner. Then take a dead horſe's tail, or a duſting cloth of cotton, and ſtrike that duſt away which the curry-comb hath raiſed. Then take a round bruſh, made of briſtles, and dreſs him all over, both head, body, and legs, to the very fetlocks, always cleanſing the bruſh from that duſt which it gathereth, by rubbing it upon the curry-comb.

"After that take a hair-cloth, and rub him again all over very hard, both to take away the looſe hairs, and to help to lay his coat; then waſh your hands in fair water, and rub him all over with wet hands, as well head as body, for that will cleanſe away all thoſe hairs and duſt the hair-cloth left. Laſtly, take a clean cloth and rub him all over till he be very dry, for that will make his coat ſmooth and clean.——Then take another hair-cloth (for you ſhould have two, one for his body and another for his legs) and rub all his legs exceeding well from the knees and cambrell-houghs downwards, to his very hoof, picking and dreſſing them very carefully about the fetlocks, from gravel and duſt, which will lie in the bending of his joints."

Nothing can be more obvious, than the great benefits derived to the animal ſyſtem from the factitious exerciſe of this friction, which at once ſeconds the intentions of nature, by aiding the general circulation, and cleanſes the external ſurface from all impurities; it is ſaid to be equally beneficial to the operator, and the labour of grooming has been warmly recommended by phyſicians to aſthmatic patients, or thoſe who labour under the defects of a confined cheſt and impeded reſpiration. Without regular grooming, it is vain to expect a horſe will exhibit himſelf in his moſt beautiful colours, or be capable of his utmoſt exertions; in a word, that he will be in high condition.

Care ſhould be taken (by the maſter I mean) that the curry-comb be not too ſharp, or at leaſt not uſed in a rude and ſevere manner, ſo as to be an object of torture and dread, inſtead of delight and gratification to the horſe. It is too often the fate of thin-ſkinned horſes, to ſuffer much from the brutality of heavy-handed and ignorant fellows, who puniſh with hard blows every motion the irritated animal is neceſſitated to make, looking upon him as a mere machine, which is deſtined to undergo all kinds of inflictions.

HORSE-HAIR NOOSES, are devices to take birds by the neck or legs, ſometimes by both; the moſt proper places for that purpoſe, being amongſt buſhes and ſmall coppices, and the manner thus:

Make little hedge-rows, about half a foot high, by ſticking ſmall furze-buſhes, brambles, or thorns, &c. in direct or crooked lines, of ſuch a length and number as you think fit, according to the game you ſuppoſe the place may afford; and then at ſeveral diſtances, leave little open ſpaces big enough for the birds to paſs through. The letters A, B, C, ſhew the paſſages or void ſpaces, in every one of which you muſt fix a ſhort ſtick, of the bigneſs of one's finger, and tie thereto a nooſe of horſe-hair, finely twiſted, with a ſlip-knot, that the fowl endeavouring to paſs through may draw it upon his neck, and ſo be ſtrangled. *See* Plate VII.

But for woodcocks, the ſprings are to be laid flat on the ground, to catch them by the legs; and good ſtore of partridges may alſo be taken by theſe devices, ſet acroſs a ploughed furrow, in the bottom, in caſe there be any in the field. *See* Plate XVIII.

HORSES KIDNIES DISORDERED. Many are the diſeaſes to which the kidnies are ſubject, ſuch as inflammation, obſtruction, ulceration, relaxation, &c. whence ſuppreſſion of urine, diabetes, bloody urine, &c. but the gravel and the ſtone very rarely, if ever, affect horſes, notwithſtanding ſome directions are given for theſe complaints in caſe of an inſtance thereof occurring. Theſe diſeaſes which do often diſorder the kidnies, if they continue long are uſually dangerous, particularly if the horſe grows feeble, if blotches which turn into ſcabs appear, or if his appetite continue to fail.

An uſual weakneſs in the loins; foul or bloody urine diſcharged with difficulty; loſs of appetite; faintneſs, if put to any exerciſe; when he is put to ſtep backward, if it occaſions a conſiderable degree of pain, eaſy to be obſerved by a by-ſtander; any or all theſe indicate ſome degree of fault in the kidnies. The laſt ſymptom happens when a horſe's back or loins have been ſtrained, but it is then unattended with either the loſs of appetite or fleſh; or the diſordered appearances in the urine, except now and then, that it is rather more high coloured than is natural to a healthy ſtate.

If the difficulty of ſtaling be attended with much fever, an inflammation in the kidneys may be ſuſpected. If the urine is not freely diſcharged, but is foul, dark coloured, or fœtid, and has a red or purple coloured ſediment, on ſtanding a little while, there is an ulcer in the kidney, which will gradually deſtroy the horſe; in the milder kind of ulcers, the ſediment hath the appearance of good pus or matter, from the ſurface of a wound, only mixed with blood, which diſtinguiſhes it from the matter which is diſcharged from an ulcer in the bladder, which is without or with very little blood, and that, darker coloured than that which ariſes from the kidnies.

In all diſorders of the kidnies, violent exerciſe and heavy burdens ſhould carefully be guarded againſt. Young horſes have frequently a weakneſs in their kidnies; in which caſe if care is not had to exerciſe nor to load them too freely, and to feed them regularly and tolerably well, until they are ſix or ſeven years of age, they will outgrow this infirmity; but neglect hereof will be their deſtruction.

To relieve theſe complaints, if there is any degree of fever, bleed according to the ſtrength and condition of the horſe, and give the cooling medicines directed for fevers: the heat being moderated, and his belly tolerably lax, give the following: If there is no fever, nor tendency to inflammation, the bleeding may be omitted; in its ſtead put a rowel under the belly, then proceed as follows:

Diuretic Balls for diſeaſed Kidneys.

Take balſam-capivi, Venice-ſoap, and nitre, of each one ounce; beat them well together, and form them into a ball, which repeat every four, ſix, or eight hours, until the urine is freely diſcharged and recovers a more healthy appearance: let his drink be water, in which parſley or marſhmallow roots have been boiled, with four ounces of nitre in each gallon.

HORSE-LOCK AND KEY, an inſtrument to open a horſe's fetter, or chain-lock.

It is a ſquare iron plate, bent at one end, having a ſquare hole and nicks in one part of it, to anſwer the ſprings and wards within the bolt; the other end is bent half round, with a ſmall turn at the end to make it look handſome.

HORSE-MEASURE, a rod of box to ſlide out of a cane, with a ſquare at the end, being divided into hands and inches, to meaſure the height of horſes.

HORSE SHOE; of theſe there are ſeveral ſorts: 1. That called planch-ſhoe or pancelet, which makes a good foot, and a bad leg, by reaſon it cauſes the foot to grow beyond the meaſure of the leg; though for a weak heel it is exceeding good, and will laſt longer than any ſhoe, being borrowed from the moil, that has weak heels and ſruſhes, to keep the feet from ſtones and gravel.

2. Shoes with calkins, which though they be intended to ſecure the horſe from ſliding, yet they do him more harm than good, ſo that he cannot tread evenly upon the ground, whereby many times he wrenches his foot, or ſtrains ſome ſinews, more eſpecially upon ſtony ways, where the ſtones will not ſuffer his calkins to enter, the foot ſlips with more violence; though ſome do not think a horſe well ſhod unleſs all his ſhoes be made with calkins, either ſingle or double; however, the double ones are leſs hurtful, for he will tread evener with them than with ſingle calkins, but they muſt not be over long, or ſharp pointed, but rather ſhort and flat.

3. There are ſhoes for rings, which were firſt invented to make a horſe lift his feet up high. Though ſuch ſhoes are more painful than helpful, and it is an unpleaſing ſight; this is uſed for horſes that have not ſound hoofs, for tender feet fear to touch the ground that is hard: but what is intended for a remedy, proves a prejudice to the horſe, by adding high calkins, or elſe theſe rings to his ſhoes, for by that means he is made to have weaker heels than before.

4. Shoes with ſwelling welts, or borders round about them,

them, are uſed in *Germany*, *&c.* which being higher than the head of the nails, ſave them from wearing; and theſe are the moſt laſting ſhoes, if made of well tempered ſtuff, for they wear equally in all parts, and the horſe treads equally upon them.

5. Others that uſe to paſs mountains where ſmiths are not ſo eaſily to be met with, carry ſhoes about them with vices, whereby they faſten them to the horſe's hoof without help of the hammer or nail, notwithſtanding it is more for ſhew than any good ſervice: for though this ſort of ſhoe may ſave his feet from ſtones, yet it ſo pinches his hoof, that he goes with pain, and perhaps injures it more than the ſtones do; therefore upon ſuch emergent occaſions, it is better to make uſe of a joint-ſhoe which is made of two pieces, with a flat rivet-nail joining them together in the toe, ſo that you may make it both wide and narrow to ſerve any foot.

6. The paſtern-ſhoe is neceſſary for a horſe that is burnt in the hip, ſtiffle, or ſhoulder, which will cauſe him to bear upon that leg where the grief is, and conſequently uſe it the better.

7. A ſhoe proper for flat feet.

8. The panton or patable-ſhoe, which opens the heels, and helps hoof-binding.

Theſe are of admirable uſe, in regard that they never ſhift upon the feet, and continue firmly in one place.

2. And laſtly the half panton ſhoe.

HORSEMANSHIP. Mr. LAWRENCE ſays it is rather a hazardous taſk for an author to ſay any thing ſerious on this ſubject after Mr. BUNBURY's exquiſite *Burleſque of Geoffrey Gambado*; which has convulſed all thoſe of the preſent time who have any tolerable portion of the animal riſibile in their compoſition. One would wonder how there could be any unſkilful or barbarous horſemen in England, ſince ſuch judicious and humane rules have been long time attainable for the moderate ſum of one ſhilling, in the truly excellent pamphlet of Profeſſor CHARLES HUGHES. But thus it is; neither the light but poignant ſhafts of ridicule, nor the ſage admonitions of pains-taking authors, are able to prevail upon the bulk of people to become good jockies. Hear old BLUNDEVILLE upon this affair:—"Of which knowledge, what lacke we Engliſh haue had, and ſpeciallie haue at this preſent, is beſt ſeene at a muſter, when the Queene's Maieſtie hath need of horſes and horſemen, where oftentimes you ſhall ſee ſome that ſit on their horſes like wind-ſhaken reeds, handling their hands and legs like weauers: or if the horſeman be good, then the horſe for his part ſhal be ſo broken, as when he is ſpurred to go forward, he wil go backward: and when his rider would haue him to turne on the right hand, he will turne cleane contrarie: and when he ſhould ſtop he will arme himſelfe, and run awaie, or elſe ſtop ſooner than his rider would haue him, or uſe ſuch like toies." Hear farther the warm-headed, but well-meaning MICHAEL BARET:—"Alſo, hee muſt carry his body upright, neither yeelding too farre backe (as if hee were pulling at a great tree, nor too forward as if hee were aſleep, for theſe two motions ſerve to other ends (as hereafter ſhall be ſhowne) neither to ſit on one ſide, like a crab, or to hang his body ouer as if he were drunken, as I have ſeen ſome horſemen doe. Neither ought he to carry his legs ſo cloſe to his horſe's ſides, that hee cannot give any motion therewith, except hee firſt thruſt them forth.—Neither muſt he carry his legs (out) ſtaring like ſtilts (without joynts, as Saint George painted on horſe-backe) before his horſe's fore-ſhoulder," *&c.*

Some you will ſee, who, under *the miſtaken notion*, that it is the go, to lean forward, becauſe they have ſeen ſomething like it, at a race; hang quite over their horſes necks: theſe equeſtrians make a ſmall miſtake, by bending at the hip-joint inſtead of the middle of the ſpine, which, by protruding their poſtic parts, gives them the ſemblance of being juſt in the act of offering an oblation to the neceſſary goddeſs. Others thruſt their legs out from the horſes ſides, in defiance of all ordinary gate-ways.

The modern ſeat on horſe-back, and it ſeems to have owed its eſtabliſhment to reaſon, confirmed by experience, is, to ſet naturally and eaſily upright upon your ſaddle, as you would in your chair; your knees about as much bent, and turned inward, your toes ſomewhat out, and upward, your leg falling nearly ſtraight, and your foot home in the ſtirrup; your back-bone prepared to bend in the middle, upon occaſion, your elbows held cloſe to your ſides, your hands rather above the horſe's withers, or the pommel of the ſaddle, and your view directed between his ears. This is the true turf or Newmarket ſeat.

The decline of Riding-houſe forms in this country, and the univerſal preference given to expedition, fully confirm the ſuperior uſe and propriety of a jockey-ſeat. Indeed, our riding-ſchools are now conſiderably reformed from the ſtiffneſs of ancient practice, in all reſpects. But the reader, on a reference to HUGHES's publication, will find we do not entirely agree in all points. It was the practice formerly in the ſchools, and, indeed, pretty generally upon the road, to ride with the tip of the toe only in the ſtirrup; as if it were of more conſequence to prepare for falling with ſafety, than to endeavour to ſit ſecurely. Thoſe who preſerve a partiality for this venerable cuſtom, we would adviſe to ſuſpend a final judgment, until they have made a few more eſſays upon a huge, cock-tail half-bred; of that kind, which "cannot go, and yet won't ſtand ſtill;" and will dart from one ſide of the road to the other, as if they really deſired to get rid of their burden. Nor is the ball of the foot a proper reſt; chiefly, becauſe inconvenient to that erect, or rather almoſt kneeling poſture, which is required in ſpeedy riding. The riding-houſe ſeat is preſerved, by the balance or equipoiſe of the body, ſolely; that recommended here by the firm hold of knee, which is obviouſly ſtrengthened by the oppoſite directions of the knee and toe, the one in, the other outward. The uſe of a fixed ſeat is to enable the rider to give his horſe the proper pulls, without which every experienced jockey knows he can neither go ſteadily and well, nor laſt his time. It is not the cuſtom of the ſchools to ſpur the horſe with a kick; but ſpurring is always ſo performed, upon the road and field; as the military mode of giving that correction would quite derange a jockey-ſeat, and would be on other accounts inconvenient.

ST. BEL, had he lived, intended to have preſented us with an eſſay upon Engliſh equitation; a ſubject, wherein he would have failed, from a want of practical experience.

There are many perſons unaccuſtomed to riding on horſeback, who, when they occaſionally mount, are very juſtly anxious both for their perſonal ſafety, and their appearance. It is for the benefit of theſe we write. If they will immediately adopt proper rules, they will not only make a reſpectable horſeman-like appearance, but will place themſelves in the line of improvement, and in a ſituation the beſt calculated to inſure their ſafety. Inſtead of being unable to keep their ſpurs from the horſe's ſides, they would, with a proper ſeat, experience conſiderable difficulty in reaching them. It is too often neglected, even by people who are fond of horſes, to teach their children a good ſeat, thinking it probably quite ſufficient if they can but ſtick faſt; and I have ſeen young gentlemen riding with their fathers, in a very vulgar and unbecoming ſtyle.

We cannot ſpeak to the antiquity of the Engliſh faſhion of riſing in the ſtirrups during a trot, and of preſerving time with the motions of the body, in uniſon with thoſe of the horſe; but the knowledge of it is diſcoverable in BARET, and in no author before him. It would be ſuperfluous to give directions on this practice, which will be inſtantly acquired by obſervation and uſe. The ſame may be ſaid of the gallop, which is performed, on the rider's part, like certain other pleaſant actions, kneeling; the pulling of the horſe helping to keep the rider ſteady. In the canter, the rider ſets upon his ſeat, as in an eaſy chair. The method of giving the wriggling helps with the bridle, either in the gallop, or ſwift trot, to encourage a horſe forward, muſt be acquired by practice. The firſt-rate Engliſh horſes, and the beſt examples of horſemanſhip, are to be ſeen in Hyde Park; where for many years paſt, it has been the prevailing cuſtom to take the morning ride, and where no perſon of decent habit and demeanour is refuſed admittance.

The following directions for a juſt ſeat on horſeback, are tranſcribed from BLUNDEVILLE, "And ſee that you do not only ſit him boldlie, and without feare, but alſo conceive with yourſelf, that he and you do make as it were but one bodie: and that you both have but one ſenſe and one will. And accompanie him with your bodie in any mouing that he maketh, alwaies beholding his head right betwixt his eares, ſo as your noſe maie directlie anſwer his foretop. Which ſhall be a ſigne unto you to know therebie, whether you ſit right in your ſaddle or not. And let the ridge-bone of your back be euen with his. And let your left hand, holding the reanes of the bridle, be euen with his creaſt, and in anie wiſe keep your thighes and knees cloſe to the ſaddle, holding downe your legs ſtraight, like as you do when you are on foote. And let your feete reſt upon the ſtirrups in their due places, both heele and toe ſtanding in ſuch ſort, as when you ſhall turne your head, as farre as you can on the one ſide, without mouing your body, and looking downward to your ſtirrup: you ſhall perceiue that your toe doth directlie anſwere the tip of your noſe: and according as the ſaddle is made, ſo ſhall you ride long or ſhort. But alwaies let your right ſtirrup be ſhorter than the other by half a hole."—

"Likewiſe his legs muſt be pendant of an equal diſtance from the horſe's ſides, his feete ſo leuil in the ſtirrups, as they are, when he walketh on the ground, neither muſt his ſtirrup lethers be ſo long, that his chiefeſt labour ſhall be to keep his feet in them (for ſo a man ſhall looſe his true ſeat by ſtretching his legges, as if they were on the tenters) nor ſo ſhort that he ſhall be rayſed from his true ſeate (the pitch of his knees being diſlocated from the points of the ſaddle) nor ought one ſtirrup to be longer than the other (in my judgment) although many worthy men haue ſet that order downe. My reaſon is, in regard the man muſt haue a true and upright ſeate, and nature hath made his legges (which are the ſupporters thereof) one not longer than another, but of an equal length; therefore I cannot ſee how the body ſhould be kept direct, the legges one of them hanging ſider than another."

We ſhall preſent the reader with a few uſeful hints from Mr. HUGHES.

"If you would mount with eaſe and ſafety, ſtand rather before the ſtirrup than behind it; then with left hand, take the bridle ſhort, and the mane together, help yourſelf into the ſtirrup with your right, ſo that in mounting, your toe do not touch the horſe. Your foot being in the ſtirrup, raiſe yourſelf till you face the ſide of the horſe, and look directly acroſs the ſaddle, then with your right hand lay hold of the hinder part of the ſaddle, and with your left, lift yourſelf into it.

"On getting off the horſe's back, hold the bridle and mane in the ſame manner as when you mounted, hold the pommel of the ſaddle with your right hand; to raiſe yourſelf, bring your right leg over the horſe's back, let your right hand hold the hind part of the ſaddle, and ſtand a moment on your ſtirrup, juſt as when you mounted. But beware that in diſmounting, you bend not your right knee, leſt the horſe ſhould be touched by the ſpur. Graſp the reins with your hand, putting your little finger between them. Your hand muſt be perpendicular, your thumb uppermoſt upon the bridle.

"Suffer him not to finger the reins (the groom, in holding the horſe) but only to meddle with that part of the headſtall, which come's down the horſe's cheek, to hold a horſe by the curb, when he is to ſtand ſtill, is very wrong, becauſe it puts him to needleſs pain.

"When you are troubled with a horſe that is vicious, which ſtops ſhort, or by riſing or kicking endeavours to throw you off, you muſt not bend your body forward, as is commonly practiſed in ſuch caſes; becauſe that motion throws the breech backward, and moves you from your fork or twiſt, and caſts you out of your ſeat: but the right way to keep your ſeat, or to recover it when loſt, is, to advance the lower part of your body, and to bend back your ſhoulders and upper part. In *flying* or *ſtanding* leaps, a horſeman's beſt ſecurity is, the bending back of the body.

"The riſing of the horſe does not affect the rider's ſeat; he is chiefly to guard againſt the laſh of the animal's hind legs; which is beſt done, by inclining the body backward. Obſerve farther, that your legs and thighs are not to be ſtiffened, and, as it were, braced up, but your loins ſhould be lax and pliable, like the coachman's on his box. By ſitting thus looſely, every rough motion

of the horſe will be eluded; but the uſual method of fixing the knees, only ſerves, in great ſhocks, to aſſiſt the violence of the fall. To ſave yourſelf from being hurt, in this caſe, you muſt yield a little to the horſe's motion; by which means you will recover your ſeat, when an unſkilful horſeman would be diſmounted.

"Take, likewiſe, particular care not to ſtretch out your legs before you, becauſe, in ſo doing, you are puſhed on the back of the ſaddle; nor muſt you gather up your knees, as if riding upon a pack, for then your thighs are thrown upwards. Let your legs *hang perpendicular*, and ſit not on the thickeſt part of your thighs, but let them bear inward, that your knees and *toes may incline inwards likewiſe.*" We have aſſigned a reaſon for the preſent practice of riding with the knee ſomewhat bent, and the toe turned in a ſmall degree outward, and upward; and this ſmall deviation will, by no means, affect the general utility of HUGHES's ſyſtem. He proceeds:—"If you find your thighs are thrown upwards, open your knees, whereby your fork will come lower on the horſe. Let the hollow, or inner part of the thighs, graſp the ſaddle, yet ſo as to keep your body in a right poiſe. Let your heels hang ſtraight down, for while your heels are in this poſition, there is no danger of falling."

The following is an excellent rule:—"If your horſe grows unruly, take the reins ſeparately, one in each hand, put your *arms* forward, and hold him ſhort; but pull him not hard with your arms low; for, by lowering his head, he has the more liberty to throw out his heels: but if you raiſe his head as high as you can, this will prevent him from riſing before or behind; nor, while his head is in this poſition, can he make either of theſe motions.

"Is it not reaſonable to imagine, that if a horſe is forced towards a carriage which he has ſtarted at, he will think he is obliged to attack or run againſt it? Can it be imagined that the rider's ſpurring him on, with his face directly to it, he ſhould underſtand as a ſign to paſs it?"—Theſe rational queries, are ſubmitted to the ſerious conſideration of ſuch as are fond of always obliging their horſes to touch thoſe objects, at which they are, or affect to be frightened.

It may be remarked, that moſt of the riding-ſchool gentlemen, are very fond of horſes carrying their heads high; a form much more ſuitable for ſtate and parade, than real buſineſs. Almoſt all the Arabians which come over hither, and which have been worked in their own country, go in that manner. Work indeed will bring the head down, but, perhaps, with the noſe puſhed ſtraight out. Horſes, of this form, are ridiculed by BARET, under the name of Aſtronomers, and Star-gazers.

Indifferent horſemen ſhould never venture on horſeback without ſpurs. Let them reflect upon the predicament, of being placed between a deep ditch, and a carriage at which their horſe ſhies.

There is a circumſpection to be adopted advantageouſly by the unſkilful, which will, at firſt, give them the ſemblance, afterwards the reality, of good riding. The method of taking a rein in each hand, occaſionally (much in uſe of late years) gives the rider great command over the mouth, neck, and fore-quarters of a horſe.

A good horſeman, without preſſing too much upon the mouth of his horſe, is always prepared to aſſiſt him, in caſe of a blunder, with the united exertions of his arm, cheſt, ſhoulders, and loins; and, from the force of conſtant habit, this comes inſtinctively, as it were, for the occaſion; even if the accident be unnoticed or the mind otherwiſe engaged. Both hands upon the bridle are neceſſary and becoming, in riding faſt down ſteep decents, or ſtoney ways; and it is extreme folly to commit the reins to the neck of the preſumed ſafeſt horſe.

Some ſpeedy and jadiſh horſes, will, after "they have got their gruel," by being travelled briſkly, thirty or forty miles, at the next ſtage, fall into a ſlow trot, bend their necks, foam at the mouth, refuſe to bear an ounce upon the bit, and keep perpetually upon the curvet, as if they longed to be upon the parade. Whenever this happens, the beſt way of concluding the buſineſs, is to walk them the remainder of the journey, and then give them a week's reſt: You may chooſe whether you will ride them another.

Previous to mounting, every gentleman will find his account in examining the ſtate of both horſe and furniture, with his own eyes and hands; for however good and careful his groom may generally be, it is a maxim, that too much ought not to be expected from the head of him who labours with his hands. Beſides, all ſuch ſedulouſly avoid trouble, particularly in nice matters. For example, ſee that your curb is right, that your reins are not twiſted, that your girths, one over the other, ſtill bear exactly alike; that the pad be not rucked up; but above all, that your ſaddle ſtands exactly level upon the horſe's back. I have known capital grooms, in the ſervice of ſporting gentlemen, ſo careleſs in placing a ſaddle, that it has abſolutely worn awry, and would never ſtand even afterwards.

In journey-riding, every perſon ought to know, that no great performances are to be expected from a hack, which is not in thorough condition. If he has been lately from graſs, or ſtraw-yard, or has been kept within, upon the ſaving plan of abridging his food in proportion to his work (a favourite meaſure with ſome people) he will receive damage from a long journey, however good he may be in nature: in ſuch caſe, from thirty, to five-and-forty miles, is a ſufficient day's work.

On the ſubject of Female Equitation, or Ladies Riding on Horſeback, a quotation from Mr. HUGHES, whoſe authority will be acknowledged unqueſtionable, cannot but be acceptable.

"*Method of Mounting.*—A perſon ſhould ſtand before the head of the horſe, holding with each hand the upper part of the cheek of the bridle. Then the lady muſt lay her right hand on the near ſide of the pommel, and her left hand on the left ſhoulder of a gentleman (or a ſervant) who will place both his hands together, the fingers and thumbs being interwoven with each other. This being done, let the lady put her left foot firm in the gentleman's hands; and giving a little ſpring, ſhe will be vaulted into the ſaddle in a moment. When ſhe

is

is thus ſeated, let her reſt the ball of her left foot firm in the ſtirrup; and to prevent accidents, ſhe ſhould wear *Italian* ſhoes, with very long quarters, and the heel of the ſhoe coming forward to the middle of the foot. Ladies ſhoes, made in the common faſhion, are dangerous, becauſe the foot reſts in the hollow between the toes and the heel. Remember that the pommel of the ſaddle ſhould be made very low, that the ladies knee may not be thrown too high; and the ſtirrup ſhould hang low; both which circumſtances will help to give her a graceful figure, and add greatly to thoſe charms which nature has beſtowed on her. When ſhe is thus placed, let her take her whip in her right hand, near the head, with her thumb upon it, and the four fingers under it, holding it obliquely, ſo that the ſmall end of it may be ſome inches above the middle of the horſe's hind leg. The arm that ſupports the whip is always to hang ſtraight; but with a kind of negligent eaſe; nothing looks more awkward than a lady's holding the whip with her arm crooked at the elbow. A lady ſhould hold her bridle moderately ſlack, with her little finger under the rein, and the other three fingers paſſing between the rein, on the top of which her thumb muſt be placed. Being thus ſeated, ſhe will pleaſe to walk her horſe off gently, and put him into his other paces at her pleaſure.

"The pommel of a ladies ſaddle ſhould be always made with a turn-again ſcrew, to take off in caſe the rain, wind, or ſun is troubleſome—when a lady may ride on the contrary ſide of the horſe."

Queen ELIZABETH, it ſeems, firſt of all introduced the practice of ladies riding ſideways on horſeback, in *England*. Much has been ſaid againſt it, as inconvenient and dangerous; but on conſulting an experienced lady on the ſubject, ſhe remarked that ſcarce any accidents ever occurred from the practice, even in hunting; that it was not only more decorous, but much more convenient for women, in ſeveral reſpects, which ſhe was ingenuous enough particularly to ſtate.

HORSE-RACING; a diverſion more uſed in *England*, than in all the world beſide, *ſee* ARABIAN, PEDIGREE OF A HORSE.

Horſe-racing is of conſiderably antiquity in this iſland, and may be traced as far back as the eleventh century, but did not begin to put on any regulated form until the acceſſion of the houſe of STUART, moſt of the princes of which entertained great partiality for the port, as has been already remarked. *Newmarket* began to be frequented previous to the Civil War; but in the reign of CHARLES II. encouraged by the preſence of the monarch and his favourites, it ſhone forth in full glory: every body knows it now, by common fame, as the head-quarters of the turf. Frequent meetings, at ſtated periods, are there held, and the ſport generally continues throughout the week; there are about fourſcore places beſides, in *England*, where races are annually held; in ſome twice in the year. At *Newmarket*, nearly all races are determined at one heat, as a meaſure of neceſſity, from their uſual number and variety.

The ſpeed and continuance of the race-horſes muſt neceſſarily be affected and governed, in certain degrees, by the weight which they have to carry; and reaſoning upon that poſition, it will be eaſily conceived, that if two horſes be equally matched in point of ſpeed and ſtrength, and put to their utmoſt exertion for a conſiderable diſtance, the horſe which carries the leaſt weight, by even only a ſingle pound, muſt infallibly have the advantage to a certain degree (however ſmall) in the ability of going more ſwift and laſting longer, than his antagoniſt. The ſwifter the pace, and the longer it is continued, the more in proportion will the horſe be affected by the weight he carries. It is ſaid, that in running four miles, ſeven pounds make the difference of a diſtance, or two hundred and forty yards, between horſes of equal goodneſs. This affair of weight is regulated with ſcientific preciſion upon the turf, and forms a prime conſideration in all ſporting tranſactions. The weights carried by race-horſes vary from the maximum twelve ſtone, fourteen pounds to the ſtone, to a feather, which means a boy of the lighteſt weight to be found.

The thorough-bred courſer is, in a general point of view, the moſt uſeful ſpecies of the horſe, as being applicable to every purpoſe, from innate qualities, which can be predicated of no other ſpecies of the animal.

Horſes for this ſhould be as light as poſſible, large, long, but well ſhaped; with a ſhort back, long ſides, and a little long-legged, and narrow breaſted, for ſuch will gallop the lighter and nimbler, and run the faſter. SOLLEYSEL ſays, he ſhould be ſomewhat long-bodied, nervous, of great mettle, good wind, good appetite, very ſwift, and ſenſible of the ſpurs; that he ought to be of an *Engliſh* breed, or barb, of a little ſize, with pretty ſmall legs, but the back ſinews a good diſtance from the bone, ſhort jointed, and have neat well ſhaped feet.

The excellent breed we have of horſes for racing in our country, though through ſeveral abuſes they have been unfortunately injurious to a great many perſons, yet if rightly regulated and made uſe of, might be very advantageous, as well as pleaſant and diverting to men of quality; and that is by having plates run for at ſeveral times, and in ſeveral countries, by which we may come exactly to know the ſpeed, wind, force, and heart of every horſe that runs, which directs us infallibly in our choice, when we would furniſh ourſelves for hunting, breeding, road, and the like; whereas without ſuch trials, we muſt ſtand to the hazard, and not be at any certainty to meet with good ones. A horſe may travel well, hunt well, and the like, and yet when he comes to be preſſed hard, and forced to the extremity of what he can do, may not prove good at heart; and more particularly, ſome racers have been beaten only by their heart ſinking in them (that have wanted neither wind nor ſpeed) when they came to be hard preſſed.

It were indeed to be wiſhed, that our nobility and gentry would not make ſo much a trade of racing; and when they run only for plates or matches, that they would do it for no more than may be loſt without damaging their eſtates; but to run for ſo great a ſum, that the loſs cannot be well borne, and conſequently endeavouring to win the ſame, if not more back again, it draws them into vaſt expence by way of preparation

for revenge, the conſequences of which need not to be mentioned. On the other hand, if a perſon proves ſucceſsful, he is but apt to fancy he ſhall prove ſo again, and ſets up for a brother of the ſpur, but runs ſo faſt, that ſometimes neither eſtate nor friends can keep along with him, and ſo turns his diverſion into mi-fortunes.

As to the method of ordering running-horſes, or what is called keeping, ſince noblemen and gentlemen will do ſo, they will find what is proper to be done in that reſpect under the article RUNNING HORSES, and therefore we will only here ſuppoſe a horſe ſet to run for a plate, and that the hour of ſtarting is at hand, the drum beats, or the trumpet ſounds, according to the cuſtom of the place where you run, to give notice for ſtripping and weighing; be ſure in the firſt place, to have your ſtomach empty, only take ſomething to keep out the wind, and to ſtrengthen you: if you are light, that you muſt carry weight, let it be equally quilted in your waiſtcoat; but it is better if you are juſt weight, for then you have no more to do than to dreſs you, according to your own fancy; your cloaths ſhould be of coloured ſilk, or of white holland, as being very advantageous to the ſpectators; your waiſtcoat and drawers muſt be made cloſe to your body, and on your head a little cap tied on; let your boots be gartered up faſt, and your ſpurs muſt be of good metal; then mount and come to the ſtarting-place, where going off briſkly or gently, as occaſion requires, make your horſe perform the courſe or heat, according to your intended deſign, particularly, if you would win the ſame, and that your horſe excels in goodneſs more than ſpeed, ſtart him off roundly, and run him to the very top of what he can do, during the whole courſe or heat; and by that means, if the horſe you run againſt be not ſo good at the bottom, though he has more ſpeed, you ſhall beat him, becauſe he will be run off it a great way before he comes to the end. But on the contrary, if your horſe's talent be ſpeed, all that you can do is to wait upon the other horſe, and keep behind till you come almoſt to the ſtand, and then endeavour to give a looſe by him: ſometimes when you are to run more heats than one, it will be your policy to loſe a heat; and in that caſe you muſt, for the eaſing and ſafeguard of your horſe, lie behind all the way as much as you can, provided you bring him in within diſtance.

The poſture to be obſerved is, that you place yourſelf upon your twiſt, with your knees firm, and your ſtirrups juſt at ſuch a length, that your feet, when they are thruſt home in them, you can raiſe yourſelf a little in the ſaddle, for your legs, without that allowance, will not be firm when you come to run; the counterpoiſe of your body muſt be forward, to facilitate your horſe's running, and your elbows muſt be cloſe to your body; but be ſure above all things, that you do not incommode your horſe by ſwagging this or that way, as ſome do, for ſince weight is a great matter in running, and that a troubleſome rider is as bad as ſo much more weight, there is no need to ſay how neceſſary it is to take great care of your ſeat and hand; you muſt therefore beware of holding yourſelf by the bridle, or of jobbing your horſe's mouth upon any occaſion; you muſt take your right rein in the ſame hand, holding up the horſe, &c. as you find it neceſſary, and every now and then remove the bridle in his mouth: but theſe things are beſt learned by experience and practice.

A plate being to be run for by heats, every man that rides muſt be juſt weight at ſtarting, in great ſcales for the purpoſe, and at the end of the ſame heat; for if you want of your weight at coming in, you ſhall loſe your heat, though you are the firſt horſe; you have half an hour between the firſt and ſecond, to rub your horſes; at the warning of the drum and trumpet again, you mount, &c. as before, and ſo till all is done, which is three, and ſometimes three heats and a courſe.

Nothing need be ſaid of the ceremonies relating to the judges, and the articles by which plate-races and matches are regulated, ſince they are ſettled according to the different cuſtoms of the places where you run.

If you do not breed racers yourſelf, be ſure you buy no horſe that has not extraordinary good blood in his veins, for the charge of keeping is great, and a good one eats no more than a bad, and requires no more attendance; ſome to ſave twenty or thirty guineas in the price of a young horſe, have loſt hundreds by him afterwards.

A horſe that you have tried once or twice at a twelve-ſtone plate, you may be ſure will make an extraordinary good hunter, and you are to obſerve, that the poſture, manner of riding, &c. is the ſame in a match, as in plate-race, only that there being but a ſingle courſe to be run, you muſt puſh for all at that one time; whereas when there are ſeveral heats, there is more ſaving, and variety of play.

HOTTS, or HUTTS, are the pounces and round ball of leather ſtuffed and tied to the ſpurs of fighting-cocks, to keep them from hurting one another in ſparring.

To HOVER, to flutter or fly over, with wings ſtretched out; to hang over.

HOUGH OR HAM OF A HORSE, is the joint of the hinder quarter, which joins the thigh to the leg.

HOUGH BONY; a ſwelling on the tip or elbow of the hough in a horſe's hinder-quarters, about as big as half a tennis-ball.

To HOUND A STAG, [among Hunters] to caſt the dogs at him.

HOUND, a hunting dog. See *the different kinds under the Articles* GREY-HOUND, BLOOD-HOUND, &c. *alſo a kind of fiſh. For Terms concerning Hounds*, &c. *ſee the Article* TERMS. *For their methods of entering for a Hare ſee* HARE-HUNTING.

All dogs whatſoever, even from the terrible Boar-dog to the little Flora, are all one in the firſt creation; that every virtue and faculty, ſize or ſhape, which we find or improve in every dog upon earth, were originally comprehended in the firſt parents of the ſpecies; and that all this variety we behold in them, is either the natural product of the climate, or the accidental effect of ſoil, food or ſituation, or very frequently the iſſue of human care, curioſity or caprice. Every huntſman knows that a vaſt alteration may be made in his breed, as to tongue, heels, or colour, by induſtriouſly improving

ing the ſame blood for twenty or thirty years; and what nature can do, (which wiſely tends to render every kind of creature fit for the country where it is to inhabit, or be employed) is manifeſt by this: That a couple of right ſouthern hounds, removed to the north, and ſuffered to propagate, without art or mixture in a hilly mountainous country, where the air is light and thin, will, by ſenſible degrees, decline and degenerate into lighter bodies and ſhriller voices, if not rougher coats. Notwithſtanding the effects of human induſtry and contrivance are not infinite, there is ſtill a *ne plus* to which they are ſtinted, nor can all our devices add one new ſpecies to the works of the creation. Nature is ſtill uniform as to the main, the Almighty Creator is not to be imitated by ſhort-hand mortals: In ſpite of art our mules will all be barren; nor can the moſt cunning projector produce one amphigeneous animal that will increaſe and multiply. There appears a diſtinct ſpecific difference in all living creatures: the horſe, the dog, the bear, the goat, however diverſified by art, or accident in ſize or figure, will ever diſcover ſomething that appropriates to them thoſe names or characters; and, above all other things the peculiar appetites and powers of generation will prompt them to own and indicate their relation. This I conceive is the moſt undeniable argument that all dogs are of one original ſpecies, ſince every body knows that no deformity, diſproportion, or diſſimilitude, can hinder any one of that name from courting, following, or accepting the other, nor their mongrel offspring from enjoying the common nature and faculties of the ſpecies.

Admitting the diſtinctions of hounds, beagles, *&c.* as they commonly ſtand, we ſhall conſult what particular ſorts ſhould be recommended for each particular game in this iſland. For the deer, the fox, the otter, *&c.* every ſportſman knows the breed that is moſt proper; but as each of them, with a little application, will joyfully follow the ſweet-ſcented hare, the query is, what kind is preferable for that delightful exerciſe?

The moſt ſatisfactory reply to every hunter is, that his own kind is beſt; but ſuch as are ſetting up a new cry, it would be adviſable to begin to breed on the middle-ſize dogs, betwixt the ſouthern hound and the northern beagle. It is true, the fineſt and moſt curious ſport in general with the former. Whether it be the particular formation of their long trunks, or the extraordinary moiſture that always cleaves to the noſes and lips of theſe ſort of dogs, it is not requiſite to inveſtigate; but certain it is, that they are endued with the moſt accurate ſenſe of ſmelling, and can often take and diſtinguiſh the ſcent an hour after the lighter beagles can make nothing of it. Their ſlowneſs alſo better diſpoſes them to receive the commands and directions of the huntſman, and then much phlegm (for there ſeems to be a difference in the conſtitutions of other animals as well as man) gives them patience to proceed with caution and regularity, to make ſure of every ſtep as they go, carefully to deſcribe every indenture, to unravel each puzzling trick or figure. But theſe grave ſort of dogs are however fitteſt for maſters of the ſame temper, as they are able to hunt in cold ſcent, they are too apt to make it ſo, by their want of ſpeed and vigour to puſh forward, and keep it warm; their exactneſs often renders them trifling and tedious. By this means, though the hunt be finer, yet the prey (which is by ſome thought neceſſary to compleat the ſport) very often eſcapes, the length of the chaſe takes up the time, and expoſes them to numerous hazards of loſing.

The north country beagle is nimble and vigorous, and does his buſineſs furiouſly. He purſues puſs with the moſt impetuous eagerneſs, gives her no time to breathe or double, and, if the ſcent lies high, will eaſily demoliſh a leaſh, or two brace before dinner. But this is too much, too ſhort, and violent, nor is ſuch ſucceſs often to be expected. For though this kind of dogs are much in requeſt among our younger gentry, who take out running and out riding their neighbours to be the beſt part of the ſport; yet it would make one ſick to be out with them in a croſs morning, when the walk lies backward, or the ſcent low or falling.

There is yet another ſort in great favour with ſome, becauſe they eat but little: theſe, as their noſes are very tender and not far from the ground, I have often ſeen to make tolerable ſport, but without great care they are flirting and maggotty, and very apt to chaunt and chatter on any or no occaſion: a rabbet, mouſe or weaſel, will pleaſe them inſtead of lawful game; and, in truth, it is ſeldom they underſtand their buſineſs, or perform their office with judgment or diſcretion.

The mixture of all, or any of theſe, I ſhould judge to be better, eſpecially if a diſtinguiſhable portion of ſouthern blood be remaining in their veins. The managing the litters muſt be left to the diſcretion of the 'ſquire and his man. But by experience a race may be produced, that, by running with leſs ſpeed, will ſurer and ſooner arrive at the end; a race that carry with them a good ſhare of the noſe and ſteadineſs of the deep curtails, the vigour and activity of the chackling beagle, the ſtrength and toughneſs of the right buckhound, and the tuneful voices that are a compound of all.

HOUZING, is either boot-houzing or ſhoe-houzing; the former is a piece of ſtuff made faſt to the hinder part of the ſaddle, which covers the croupe of the horſe either for ornament, or to cover the horſe's leanneſs, or to preſerve the rider's cloaths, and keep them from being daubed with the ſweat of the horſe.

The houzing, for ſuch as ride with ſhoes, is commonly a piece of ſcarlet cloth embroidered with gold fringe, and put round the ſaddle ſo as to cover the croupe, and deſcend to the lower part of the belly to ſave the ſtockings, when you mount in ſhoes.

HUMOURS. When a ſwelling happens on any part, the common phraſe is, the humours are fallen there, hence endeavours are made to draw them away, or to repel them; thus by a jargon of words, the mind is led off from attending either to the proper means, or from the method of applying them to the greateſt advantage; for a relaxation of the ſolids may be the cauſe of the complaint, by conſequence, relief will be only had from reſtoring their former ſtrength. And according to other different cauſes, different remedies will be required.

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The word humours hath ſo indeterminate a uſe amongſt many, as hardly to have any meaning in it; but in general, it contains this ſuppoſition, viz. that there is a faulty quality in that to which this name is given. Humour is only another word for fluid. The blood is the general humour or fluid, from whence all the other humours or fluids in the body except the chyle, is ſeparated; naturally theſe humours or fluids neither err in quantity or quality, though they may accidentally become faulty either way, or in both at the ſame time.

Again, to ſay the humours or fluids without ſpecifying what particular ones are intended, is uſing a word without ſignification or advantage; for without a knowledge of the particular humour or fluid that is in fault, we muſt be ignorant of the proper method of altering either the quantity or the quality. The quality of all are changed by alteratives; but different alteratives are ſometimes required, not only for the different humours, but alſo for the different ſtates of the ſame humour; and as to the quantity, a redundance of red blood requires bleeding; an exceſs of ſerum requires purges or diuretics; and other means are adapted to other humours; particular acquaintance with which is neceſſary before they can be altered in their quality, or either increaſed or diminiſhed in their quantity.

HUNGRY EVIL, is an inordinate deſire in horſes to eat.

It proceeds either from great emptineſs or want of food, when the beaſt is even at the utmoſt pinch, and almoſt chapfallen; though it ſometimes proceeds from cold outwardly taken; ſometimes by travelling long in froſt and ſnow, or through barren places: this outward cold affecting the ſtomach ſo far, that its action and faculties are depraved.

The tokens of this diſtemper are an alteration in the horſe's manner of feeding, when he has loſt all manner of temperance, and chops at his meat, as if he would even devour the manger.

For the cure: In order to comfort his ſtomach, give him great ſlices of bread toaſted and ſteeped in ſack, or give him wheat-flour in wine, or wheat-meal in milk, a quart at a time, or elſe let him eat bread made of pine-nuts.

But there is nothing better than to feed him moderately ſeveral times in a day with good bean-bread well baked, or oats well dried and ſifted.

HUNTING. Above all things the ſcent is worthy admiration. The bulk, ſize, figure, and other accidents or qualities of theſe parts, or portions of matter that diſcharge themſelves from the bodies of theſe beaſts of game, are ſubjects much fitter for the experiments and learned deſcants of a philoſopher, than a ſimple huntſman. Whether they are to be conſidered as an extraneous ſtock or treaſure of odoriferous particles given them by Divine Wiſdom, for the very purpoſe of hunting? Whether they are proper identical parts of the animal's body, that continually ferment and perſpire from it? Whether theſe exhalations are from the breath of her lungs, or through the ſkin of her whole body, are queſtions alſo that deſerve the ſubtlety of a virtuoſo. But ſuch obſervations as long experience has ſuggeſted, will be expreſſed in the plaineſt manner. That theſe particles are inconceivably ſmall, is manifeſt from their vaſt numbers. Hundreds of hares, after a chaſe of two, three, four, or five hours, have been taken, and never ſhewed the leaſt difference, in bulk or weight, from thoſe ſeized or ſnapt in their forms: nor could we ever learn from gentlemen, who have hunted baſket hares, that they could diſcover any viſible waſte in their bodies, any farther than may be ſuppoſed to be the effect of diſcharging their groſſer excrements. But ſuppoſing an abatement of two or three grains, or drachms, after ſo long a fatigue; yet how minute and almoſt infinite muſt be the diviſion of ſo ſmall a quantity of matter, when it affords a ſhare to ſo many couple of dogs, for eight, ten, or twenty miles ſucceſſively. Deducting, at the ſame time, the much greater number of theſe particles that are loſt in the ground, diſſipated in the air, extinguiſhed and obſcured by the fœtid perſpirations of the dogs and other animals, or by the very fumes and exhalations of the earth itſelf. That theſe particles are ſubject to ſuch diſſipation or corruption, every ſportſman knows; for as none of them will retain their odour after a certain proportionable time, ſo it is daily evident, that this time of their duration is very ſubſervient to the viciſſitudes of the weather; that the ſcent of the animal (as well as her more ſolid fleſh) will loſe its ſweetneſs, ſooner or later, according to the diſpoſition of the air.

It has been often perceived that, a ſtorm approaching, the ſcent will, in a moment change and vaniſh. Nor is the ſuddenneſs of ſuch alteration the leaſt wonderful, if we take into conſideration the ſmallneſs of the particles. The ſame efficient cauſe may penetrate and corrupt theſe minute corpuſcles in the twinkling of an eye, which requires an hour or a day to operate on bodies of greater bulk and ſubſtance; as the ſame fire, or aqua-fortis, will diſſolve the filings of ſteel in an inſtant, though a pound lump of that ſame metal is ſo long able to reſiſt their violence. That theſe particles of ſcent are of an equal ſpecific gravity with the particles of the air, is demonſtrated by the falling and riſing of them in juſt proportion to it.

Haſty huntſmen will curſe their dogs (that yeſterday were the beſt in *England*) for galloping and ſtaring, with their noſes in the air, as if their game was flown; for often does it happen that it is in vain for them to ſeek after the ſcent in any other place, the increaſing weight of the air having waſted it over their heads. Though even at ſuch a ſeaſon, after firſt the mettle and fury of the cry is ſomewhat abated, the more ſteady beagles may make a ſhift to pick it out by the particles left by the bruſh of her feet, eſpecially if there be not a ſtrong, drying, exhaling wind to hurry theſe away after the reſt. This often happens in a calm, gentle, ſteady froſt, when the purity, coldneſs, or perhaps the nitre of the air, ſerves to fix and preſerve the few remaining particles, that they do not eaſily corrupt. At another ſeaſon, when the air is light, or growing lighter, the ſcent muſt proportionably be falling or ſinking, and then every dog, though in the height of his courage, he puſhes forwards, yet is forced to come back again and again, and

cannot

cannot make any ſure advances, but with his noſe in the ground. When circumſtances are thus (if there be not a ſtorm of thunder impending to corrupt the ſcent, you may expect the moſt curious and laſting ſport; puſs having then a fair opportunity to ſhew her wiles, and every old or ſlow dog to come in for his ſhare, to diſplay his experience, the ſubtlety of his judgment, and the tenderneſs of his noſtrils. The moſt terrible day for the hare is, when the air is in its mean gravity, or equilibrio, tolerably moiſt, but inclining to grow drier, and fanned with gentle breezes: the moderate gravity buoys up the ſcent as high as the dog's breaſt; the veſicles of moiſture ſerve as ſo many canals, or vehicles, to carry the effluvia into their noſes; and the gentle fannings help, in ſuch wiſe to ſpread and diſſipate them, that every hound, even at eight or ten paces diſtant, eſpecially on the windy ſide, may have his portion.

It is neceſſary for all gentlemen who delight in hunting, to provide themſelves with a barometer, or weather-glaſs, as this ingenious machine is of great uſe to the obſervant huntſman; for when he riſes in the morning, and finds the air moiſt and temperate, the quick-ſilver in his glaſs moderately high, or gently convex, he has a fair invitation to prepare for his exerciſe. It is a cuſtom with our juvenile ſportſmen to fix the time two or three days before hand to meet a friend, or to hunt in ſuch or ſuch a quarter. But appointed matches of this kind are improvident. He that will enjoy the pleaſures of the chaſe muſt aſk leave of the heavens. Hunting is a trade that is not to be forced, nor can the beſt cry that ever was coupled, make any thing of it, unleſs the air be in tune. The earth alſo hath no ſmall influence on this delicious paſtime; for though it ſometimes happens that the ſcent is floating, ſo that you may run down a hare through water and mire, eſpecially if you keep pretty cloſe after her, without the trouble of ſtooping; yet, at ſuch a ſeaſon, the firſt fault is the loſs of your game; the perſpirations of her body being wafted over head by the gravity of the air, and thoſe of her feet being left on elements that abſorb and confound them. This laſt caſe very often happens at the going off of a froſt, the mercury is then commonly falling, and by conſequence the ſcent ſinking to the ground. The earth is naturally on ſuch occaſion fermenting, diſſolving, ſtinking, exhaling, and very porous, ſo that it is impoſſible but moſt of the particles muſt then be corrupted, buried, or overcome by ſtronger vapours. It is common to hear the vulgar ſay, ſhe carries dirt in her heels, but that is not all, it being very plain, by what has been obſerved, that it is not only by the ſcent of the foot ſhe is ſo eagerly purſued. The mention of froſt enforces a particular obſervation, that may be uſeful or diverting to gentlemen of the chaſe: they all make it a great part of their pleaſure to hunt out the walk of a hare to her ſeat, and doubtleſs have often been ſurprizingly diſappointed on ſuch occaſions. Many times they have been able to hunt the ſame walk in one part of the fields and not in another, and have hunted the ſame walk at ten or eleven, which gave the leaſt ſcent at ſeven in the morning; and, which is moſt provoking and perplexing of all, have often been able to hunt it only at the wrong end, or backwards; after many hours wonder and expectation, cheriſhing their dogs, and curſing their fortune, and, in truth, never ſo far from their game as when their hunt is warmeſt. All theſe accidents are only the effect of the hoar-froſt, or very groſs dew (for they never happen otherwiſe) and from thence muſt the miracle be accounted for. Indeed XENOPHON, in a Treatiſe on Hunting, ſays, "In the winter there is no ſcent early in the morning when there is either an hoar-froſt or a hard froſt; the hoar froſt, by its force, contracts and contains all the warm particles in itſelf, and the harder froſt congeals them. In theſe caſes the dogs, with the moſt tender noſes, cannot touch, before the ſun diſpels them, and the day is advanced, then the dogs can ſmell, and the trail yields a ſcent as it evaporates."

A thaw tends to corrupt the particles, and we have reaſon to maintain that the froſt fixes, covers, and preſerves them. Whether this is done by intercepting their aſcent, and precipitating them to the ground by the groſs particles of frozen dew, or whether by ſheathing them and protecting them from the penetrating air, is left to the learned, but the facts are certain, and confirmed by experience. We have, therefore, only to take notice, by the way, that the hoar-froſt is very often of ſhort continuance, changeable, and uncertain, both as to its time and place of falling, and hence all theſe difficulties are eaſily reſolved. Let the huntſman, as ſoon as he is out of bed, examine but the glaſs windows, which commonly diſcover whether any hoar-froſt has fallen, what time it came, and in what condition of continuance, or going off, it is for the preſent. If it appears to have fallen at two, three, or four in the morning (ſuppoſe in the month of *October*, and other times of the year muſt be judged of by proportion) to be going off about break of day, it may then be expected that there will be a great difficulty, or impoſſibility, of trailing to her ſeat, becauſe her morning retreat being on the top of the frozen dew, the ſcent is either diſſolved, or corrupted, or diſſipated, and exhaled. It is true, after ſuch a night the dogs will find work in every field, and often hunt in full cry, but it will be generally backward, and always in vain; her midnight ramblings, which were covered by the froſt, being now open, freſh, and fragrant. If the ſaid froſt begins later in the morning, after puſs is ſeated, there is nothing to be done till that is gone off, and this is the reaſon that we often ſee the whole pack picking out a walk at nine or ten in the ſame path where another dog could not touch at ſeven. Again, if the froſt began early enough, and continues ſteadily till you are gotten into the fields, you may then make it good to her ſeat, as well as at other times on naked ground, though you muſt expect to run a good riſque at the going off of the froſt, according to the obſervations already laid down.

It is alſo to be remembered, that there is no ſmall accidental difference in the very particles of ſcent; that is, that they are ſtronger, ſweeter, or more diſtinguiſhable at one time than at another, and that this difference is found not only in divers, but often in the ſame individual creature, according to the changes of the air, or the ſoil, as well as of her own motions or condutions.

That

That there is a different ſcent in other animals of the ſame ſpecies, is evident from the draught-hounds, which were formerly made uſe of for tracing and purſuing thieves and deer-ſtealers, or rather from any common cur or ſpaniel, which will hunt out their maſter's horſe diſtinctly from all others: and that it is the ſame with the hare is no leſs viſible from the old beagles, which will not readily change for a freſh one, unleſs ſhe ſtarts in view, or unleſs a fault happens, that puts them in confuſion, aad inclines them in deſpair to take up with the next they can come by.

That the ſame hare will, at divers times, emit finer or groſſer particles, is equally manifeſt to every one who ſhall obſerve the frequent changes in one ſingle chaſe, the alterations that enſue on any different motion, and on her degrees of ſinking. The courſing of a cur-dog, or the fright from an obvious paſſenger, is often the occaſion of an unexpected fault; and, after ſuch an accident the dogs muſt be cheriſhed, and be put upon it again and again, before they will take it and acknowledge it for their game. The reaſon is, as I conceive the change of the motion, cauſes a change in the perſpiring particles, and as the ſpirits of the dogs are all engaged and attached to particles of ſuch or ſuch a figure, it is with difficulty they come to be ſenſible of, or attentive to, thoſe of a different reliſh. The alterations in a yielding hare are leſs frequeutly the occaſion of faults, becauſe they are more gradual, and like the ſame rope, inſenſibly tapering and growing ſmaller. But that alterations there are, every dog-boy knows, by the old hounds, which ſtill purſue with greater earneſtneſs, as ſhe is nearer her end.

Motion is ſaid to be the chief cauſe of ſhedding or diſcharging theſe ſcenting particles, becauſe ſhe is very ſeldom perceived whilſt quiet in her form, though the dogs are never ſo near, though they leap over her, or as has been often ſeen, even tread upon her. Indeed it ſometimes happens, that ſhe is, as we ſay, winded where ſhe ſits. But this may be the effect of that train of ſcent ſhe left behind her in going to her chair, or more probably the conſequence of her own curioſity, in moving, and riſing up, to peep after and watch the proceedings of her adverſaries. However, we muſt grant, that theſe particles of ſcent, though the effect of motion, are not more groſs and copious in proportion to the increaſing ſwiftneſs of the animal, any more than in a watering-pot, which the ſwifter it paſſes, the leſs of the falling water it beſtows upon the ſubjacent plants

It is very plain, the ſlower the hare moves, the ſtronger and groſſer, *ceteris paribus*, are theſe particles ſhe leaves behind her, which I take to be one reaſon (beſides the cloathing and ſhielding of them from the penetrating air by the deſcending froſt or dew) that the morning walk will give ſcent ſo much longer than the flight in hunting, which is another obſervation of XENOPHON, who expreſſes himſelf in the following words in his *Treatiſe on Hunting*. "The ſcent of the trail of the hare, going to her ſeat, laſts longer than that of her courſe when purſued: when ſhe goes to her ſeat ſhe goes ſlowly, often ſtanding ſtill; but her courſe, when purſued, is performed running; therefore the ground is ſaturated with one, and not filled with the other." However, it is as remarkable, that theſe odorous particles gradually decay and end with her life, becauſe it requires the moſt curious noſes to lead the cry, when ſhe is near her laſt; becauſe ſhe is entirely loſt at the laſt ſquat, and becauſe if you knock her on the head before them, there is hardly one in the pack that will ſtop or take any notice of her.

The greateſt art and curioſity is diſcovered in hunting the foil, eſpecially if ſhe immediately ſteal back behind the dogs the ſame path ſhe came; for it muſt require the utmoſt ſkill to diſtinguiſh well the new ſcent from the old, when both are mixed, obſcured, and confounded, with the ſtrong perſpirations of ſo many dogs and horſes. Yet this is often ſeen performed by ready and expert hunters. However, if the dogs be not maſters of their buſineſs, or if the air be not in due balance, the difficulty will be the greater.

Theſe remarks are generally made on the hare, which is of all others moſt worthy of ſpeculation and inquiry. By analogy the hunting the deer or fox will be eaſily underſtood, for though the ſcent of theſe is generally higher, more obvious to the noſes of the dogs, and in greater plenty whilſt the particles laſt, yet for that very reaſon (floating in the air) they are ſooner diſſipated, and require a more vigorous, though leſs ſubtle huntſman, as well as ſwifter beagles.

With reſpect to the hare, each part and member is formed for celerity. The head is round and ſhort, of a convenient length; the ears long and lofty, to hear the enemy at a diſtance, and ſave itſelf in time; the lips continually move, ſleeping and waking; and the eye is too big and round for the lid to cover it, even when aſleep; ſo that the creature ſleeps as it were on the watch. The breaſt is capacious, and fitted to take more breath than that of any other beaſt. They feed abroad, to conceal their forms; and never drink, but content themſelves with the dew. The hare's ears lead the way in her chaſe; for with one of them ſhe hearkeneth to the cry of the dogs, the other being ſtretched out like a ſail to promote her courſe. The hares of the mountains often exerciſe themſelves in valleys and plains, and, through practice, grow acquainted with he neareſt way to their forms: thoſe which frequent buſhes and brakes, are not able to endure labour; nor are very ſwift, being tender-footed, and growing fat through diſcontinuance of exerciſe. When the hare has left the dogs far behind, ſhe goes to ſome hill or riſing ground, where, rearing on her hinder legs, ſhe obſerves at what diſtance her purſuers are. Her footſteps are more ſeen in winter than ſummer; becauſe, as the nights are longer, they travel farther. Their prints are very uncertain at the full moon, at which time they leap and play together. The young, it is to be obſerved, tread heavier than the old, becauſe their limbs are weaker. A buck, or male hare, is known by his beating the hard highways, feeding farther out in the plains, and making his doublings of a greater compaſs than the female, who keeps cloſe by ſome covert ſide; turning, winding, and croſſing in the buſhes, like a rabbit, and rarely running out at an end; whereas the buck, having once made a turn or two about his form, then farewel turns; for he will frequently lead the

the hounds five or ſix miles without once turning his head. Add, that the buck is known, at his riſing out of form, by his hinder parts, which are more white, and his ſhoulder, which is redder than the doe's.

As, of all chaſes, the hare makes the greateſt paſtime, ſo it gives no ſmall pleaſure to ſee the craft of this little animal for her ſelf-preſervation. The hare is naturally timid; but emanates a very ſtrong ſcent. He ſleeps in his form or ſeat, during the day; and feeds, copulates, &c. in the night. In a moon-light evening, a number of them are ſometimes ſeen ſporting together, leaping and purſuing each other: but the leaſt motion, the falling of a leaf, alarms them; and then they all run off ſeparately, each taking a different route. They are extremely ſwift in their motion, which is a kind of gallop, or a ſucceſſion of quick leaps. When purſued, they always take to the higher grounds: as the fore-feet are much ſhorter than the hind ones, they run with more eaſe up hill than down hill. The hare is endowed with all thoſe inſtincts which are neceſſary for its own preſervation. In winter he chuſes a form expoſed to the ſouth, and in ſummer to the north; and conceals himſelf among vegetables of the ſame colour with himſelf, and has a thouſand contrivances to elude the vigilance of his purſuers, and to cut off his ſcent from the hounds. If it be rainy, the hare uſually takes to the highways; and if ſhe come to the ſide of a young grove, or ſpring, ſhe ſeldom enters, but ſquats down till the hounds have over-ſhot her; and then ſhe will return the very way ſhe came, for fear of the wet and dew that hang on the boughs. In this caſe the huntſman ought to ſtay a hundred paces before he comes to the wood-ſide, by which means he will perceive whether ſhe return as aforeſaid; which if ſhe do, he muſt halloo in his hounds, and call them back; and that preſently, that the hounds may not think it the counter ſhe came firſt.

The next thing that is to be obſerved, is the place where the hare ſits, and upon what wind ſhe makes her form, either upon the north or ſouth wind: ſhe will not willingly run into the wind, but run upon aſide, or down the wind; but if ſhe form in the water, it is a ſign ſhe is foul and meaſled: if you hunt ſuch a one, have a ſpecial regard all the day to the brook ſides; for there, and near plaſhes, ſhe will make all her croſſings, doublings, &c. Some hares have been ſo crafty, that as ſoon as they have heard the ſound of a horn, they would inſtantly ſtart out of their form, though it was at the diſtance of a quarter of a mile, and go and ſwim in ſome pool, and reſt upon ſomeruſh-bed in the midſt of it; and would not ſtir from thence till they have heard the ſound of the horn again, and then have ſtarted out again, ſwimming to land, and have ſtood up before the hounds four hours before they could kill them, ſwimming and uſing all ſubtleties and croſſing in the water. Nay, ſuch is the natural craft and ſubtlety of a hare, that, ſometimes after ſhe has been hunted three hours, ſhe will drive up a freſh hare, and ſquat in the ſame form herſelf. Others, having been hunted for a conſiderable time, will creep under the door of a ſheep-cot, and hide themſelves among the ſheep; or, when they have been hard hunted, will run in among a flock of ſheep, and will by no means be gotten out from among them till the hounds are coupled up, and the ſheep driven into their pens. Some of them will take to the ground like a rabbet, and run up a wall, and hide in the graſs on the top of it. Some hares will go up one ſide of the hedge and come down the other, the thickneſs of the hedge being the only diſtance between the courſes. A hare that has been ſorely hunted, has got upon a quick-ſet-hedge, and ran a good way upon the top thereof, and then leaped off to the ground. And they will frequently betake themſelves to furze-buſhes, and will leap from one to the other, to cut off the ſcent, whereby the hounds are frequently in default.

Having found where a hare hath relieved in ſome paſture or corn-field, you muſt then conſider the ſeaſon of the year, and what weather it is: for, if it be in ſpring-time or ſummer, a hare will not ſit in buſhes, becauſe they are frequently infeſted with piſmires, ſnakes, and adders; but will ſit in corn-fields, and open places. In the winter time, they ſit near towns and villages, in tufts of thorns and brambles, eſpecially when the wind is northerly or ſoutherly. According to the ſeaſon and nature of the place where the hare is accuſtomed to ſit, there beat with your hounds, and ſtart her; which is much better ſport than trailing of her from her relief to her form. After the hare has been ſtarted, and is on foot, then ſtep in where you ſaw her paſs, and halloo in your hounds, until they have all undertaken it, and go on with it in full cry: then recheat to them with your horn, following fair and ſoftly at firſt, making not too much noiſe either with horn or voice; for at the firſt, hounds are apt to over-ſhoot the chaſe through too much heat. But when they have run the ſpace of an hour, and you ſee the hounds are well in with it, and ſtick well upon it, then you may come in nearer with the hounds, becauſe by that time their heat will be cooled, and they will hunt more ſoberly. But, above all things, mark the firſt doubling, which muſt be your direction for the whole day; for all the doublings that ſhe ſhall make afterwards will be like the former; and, according to the policies that you ſhall ſee her uſe, and the place where you hunt, you muſt make your compaſſes great or little, long or ſhort, to help the defaults; always ſeeking the moiſteſt and moſt commodious places for the hounds to ſcent in.

It is remarkable that the hare, although ever ſo frequently purſued by the dogs, ſeldom leaves the place where ſhe was brought forth, or even the form in which ſhe uſually ſits. It is common to find them in the ſame place next day, after being long and keenly chaſed the day before. The females are more groſs than the males, and have leſs ſtrength and agility; they are likewiſe more timid, and never allow the dogs to approach ſo near their form before riſing as the males. They likewiſe practice more arts, and double more frequently than the males.

The hare is diffuſed almoſt over every climate; and, notwithſtanding they are every where hunted, their ſpecies never diminiſh. They are in a condition of propagating the firſt year of their lives; the females go with young about thirty days, and produce four or five

at a time; and as ſoon as they have brought forth, they again admit the embraces of the male; ſo that they may be ſaid to be always pregnant. The eyes of the young are open at birth; the mother ſuckles them about twenty days, after which they ſeparate from her, and procure their own food. The young never go far from the place where they were brought forth; but ſtill they live ſolitary, and make their forms about thirty paces diſtant from each other: thus, if a young hare be found any where, you may be almoſt certain of finding ſeveral others within a very ſmall diſtance.

Hunting the Fox.

Fox-hunting is now conſidered as the only chaſe in *England*, worthy the taſte or attention of a high-bred ſportſman. It certainly is the moſt manly and moſt princely diverſion, and by far the beſt exerciſe. It is termed either above, or below ground.

1. *Above-ground.* To hunt a fox with hounds, you muſt draw about groves, thickets, and buſhes, near villages. When you find one, it will be neceſſary to ſtop up his earth the night before you deſign to hunt, and that about midnight; at which time he is gone out to prey: this may be done by laying two white ſticks acroſs in his way, which he imagines to be ſome gin or trap laid for him; or elſe they may be ſtopped up with ſome black-thorns and earth mixed together.

Mr. BECKFORD, in his late ingenious treatiſe, is of opinion, that, for fox-hunting, the pack ſhould conſiſt of twenty-five couple. The hour moſt favourable for the diverſion is an early one; and he thinks that the hounds ſhould be at the cover at ſun-riſing. The huntſman ſhould then throw in his hounds as quietly as he can, and let the two whippers-in keep wide of him on either hand; ſo that a ſingle hound may not eſcape them; let them be attentive to his halloo, and let the ſportſmen be ready to encourage, or rate, as that directs. The fox ought on no account to be hallooed too ſoon, as in that caſe he would moſt certainly turn back again, and ſpoil all the ſport.—Two things our author particularly recommends, viz. the making all the hounds ſteady, and making them all draw. "Many huntſmen (ſays he) are fond of having them at their horſe's heels; but they never can get ſo well or ſo ſoon together as when they ſpread the cover; beſides, I have often known, when there have been only a few finders, that they have found their fox gone down the wind, and been heard of no more that day. Much depends upon the firſt finding of your fox; for I look upon a fox well found to be half killed. I think people are generally in too great a hurry on this occaſion. There are but few inſtances where ſportſmen are not too noiſy, and too fond of encouraging their hounds, which ſeldom do their buſineſs ſo well as when little is ſaid to them. The huntſman ought certainly to begin with his foremoſt hounds; and I ſhould wiſh him to keep as cloſe to them as he conveniently can; nor can any harm ariſe from it, unleſs he ſhould not have common ſenſe. No hounds can then ſlip down the wind and get out of his hearing; he will alſo ſee how far they carry the ſcent, a neceſſary requiſite; for without it he never can make a caſt with any certainty.—You will find it not leſs neceſſary for your huntſman to be active in preſſing his hounds forward when the ſcent is good, than to be prudent in not hurrying them beyond it when it is bad. It is his buſineſs to be ready at all times to lend them that aſſiſtance which they ſo frequently need, and which when they are firſt at a fault is then moſt critical. A fox-hound at that time will exert himſelf moſt; he afterwards cools and becomes more indifferent about his game. Thoſe huntſmen who do not get forward enough to take advantage of this eagerneſs and impetuoſity, and direct it properly, ſeldom know enough of hunting to be of much uſe to them afterwards. Though a huntſman cannot be too fond of hunting, a whipper-in eaſily may. His buſineſs will ſeldom allow him to be forward enough with the hounds to ſee much of the ſport. His only thought therefore ſhould be to keep the hounds together, and to contribute, as much as he can, to the killing of the fox; keeping the hounds together is the ſureſt means to make them ſteady. When left to themſelves they ſeldom refuſe any blood they can get; they become conceited; learn to tire upon the ſcent; and, beſides this, they frequently get a trick of hunting by themſelves, and are ſeldom good for much afterwards.

"Every country is ſoon known; and nine foxes out of ten, with the wind in the ſame quarter, will follow the ſame track. It is eaſy, therefore, for the whipper-in to cut ſhort, and catch the hounds. With a high ſcent you cannot puſh your hounds on too much. Screams keep the fox forward, at the ſame time that they keep the hounds together, or let in the tail-hounds: they alſo enliven the ſport; and, if diſcreetly uſed, are always of ſervice; but in cover they ſhould be given with the greateſt caution. Halloos ſeldom do any hurt when you are running up the wind, for then none but the tail-hounds can hear you: when you are running down the wind, you ſhould halloo no more than may be neceſſary to bring the tail-hounds forward; for a hound that knows his buſineſs ſeldom wants encouragement when he is upon a ſcent.—Moſt fox-hunters wiſh to ſee their hounds run in a good ſtyle. I confeſs I myſelf am one of thoſe; I hate to ſee a ſtring of them; nor can I bear to ſee them creep where they can leap. A pack of harriers, if they have time, may kill a fox, but I defy them to kill him in the ſtyle in which he ought to be killed; they muſt hunt him down. If you intend to tire him out, you muſt expect alſo to be tired yourſelf; I never wiſh a chaſe to be leſs than one hour, or to exceed two: it is ſufficiently long if properly followed: it will ſeldom be longer unleſs there be a fault ſomewhere; either in the day, the huntſman, or the hounds.

"Changing from the hunted fox to a freſh one is as bad an accident as can happen to a pack of fox-hounds, and requires all the ingenuity and obſervation that a man is capable of to guard againſt it. Could a fox-hound diſtinguiſh a hunted fox as the deer-hound does the deer that is blown, fox-hunting would then be perfect. A huntſman ſhould always liſten to his hounds while they are running in cover; he ſhould be particularly attentive to the headmoſt hounds, and he ſhould be conſtantly on his guard againſt a ſkirter: for if there be

two

two ſcents, he muſt be wrong. Generally ſpeaking, the beſt ſcent is leaſt likely to be that of the hunted fox: and as a fox ſeldom ſuffers hounds to run up to him as long as he is able to prevent it; ſo, nine times out of ten, when foxes are hallooed early in the day, they are all freſh foxes. The hounds moſt likely to be right are the hard-running line-hunting ones; or ſuch as the huntſman knows had the lead before there aroſe any doubt of changing. With regard to the fox, if he break over an open country, it is no ſign that he is hard run; for they ſeldom, at any time, will do that unleſs they are a great way before the hounds. Alſo, if he run up the wind;—they ſeldom or never do that when they have been long hunted and grow weak; and when they run their foil, that alſo may direct him. All this requires a good ear and nice obſervation; and indeed in that conſiſts the chief excellence of a huntſman.

"When the hounds divide and are in two parts, the whipper-in, in ſtopping, muſt attend to the huntſman, and wait for his halloo, before he attempts to ſtop either: for want of proper management in this reſpect I have known the hounds ſtopped at both places, and both foxes loſt. If they have many ſcents, and it is quite uncertain which is the hunted fox, let him ſtop thoſe that are fartheſt down the wind; as they can hear the others, and will reach them ſooneſt: in ſuch a caſe there will be little uſe in ſtopping thoſe that are up the wind. When hounds are at a check, let every one be ſilent and ſtand ſtill. Whippers-in are frequently at this time coming on with the tail-hounds. They ſhould never halloo to them when the hounds are at fault; the leaſt thing does them harm at ſuch a time, but a halloo more than any other. The huntſman, at a check, had better let his hounds alone; or content himſelf with holding them forward, without taking them off their noſes.—Should they be at fault, after having made their own caſt (which the huntſman ſhould always firſt encourage them to do) it is then his buſineſs to aſſiſt them further; but, except in ſome particular inſtances, I never approve of their being caſt as long as they are inclined to hunt. The firſt caſt I bid my huntſman make, is generally a regular one, not chooſing to rely entirely on his judgment: if that ſhould not ſucceed, he is then at liberty to follow his own opinion, and proceed as obſervation or genius may direct. When ſuch a caſt is made, I like to ſee ſome mark of good ſenſe and meaning in it; whether down the wind, or towards ſome likely cover or ſtrong earth. However, as it is at beſt uncertain, I always wiſh to ſee a regular caſt before I ſee a knowing one; which, as a laſt reſource, ſhould not be called forth till it be wanted: the letting hounds alone is but a negative goodneſs in a huntſman; whereas it is true this laſt ſhews real genius; and, to be perfect, it muſt be born with him. There is a fault, however, which a knowing huntſman is too apt to commit: he will find a freſh fox, and then claim the merit of having recovered the hunted one. It is always dangerous to throw hounds into a cover to retrieve a loſt ſcent; and unleſs they hit him in it, is not to be depended on.

"Gentlemen, when hounds are at fault, are too apt themſelves to prolong it. They ſhould always ſtop their horſes ſome diſtance behind the hounds; and, if it be poſſible to remain ſilent, this is the time to be ſo. They ſhould be careful not to ride before the hounds, or over the ſcent; nor ſhould they ever meet a hound in the face unleſs with a deſign to ſtop him. Should you at any time be before the hounds, turn your horſe's head the way they are going, get out of their track, and let them paſs by you. In dry weather, and particularly in heathy countries, foxes will run the roads. If gentlemen at ſuch times will ride cloſe upon the hounds, they may drive them miles without any ſcent.—High-mettled fox-hounds are ſeldom inclined to ſtop whilſt horſes are cloſe at their heels. No one ſhould ever ride in a direction which if perſiſted in would carry him amongſt the hounds, unleſs he be at a great diſtance behind them.

"The firſt moment that hounds are at fault is a critical one for the ſport people, who ſhould then be very attentive. Thoſe who look forward may perhaps ſee the fox; or the running of ſheep, or the purſuit of crows, may give them ſome tidings of him. Thoſe who liſten, may ſometimes take a hint which way he is gone, from the chattering of a magpie; or perhaps be at a certainty from a diſtant halloo: nothing that can give any intelligence at ſuch a time ought to be neglected. Gentlemen are too apt to ride all together: were they to ſpread more, they might ſometimes be of ſervice; particularly thoſe who, from a knowledge of the ſport, keep down the wind: it would then be difficult for either hounds or fox to eſcape their obſervation.—You ſhould, however, be cautious how you go to a halloo. The halloo itſelf muſt in a great meaſure direct you; and though it afford no certain rule, yet you may frequently gueſs whether it can be depended upon or not. At the ſowing time, when boys are keeping off the birds, you will ſometimes be deceived by their halloo; ſo that it is beſt, when you are in doubt, to ſend a whipper-in to know the certainty of the matter."

Hounds ought not to be caſt as long as they are able to hunt. It is a common, though not a very juſt idea, that a hunted fox never ſtops; but our author informs us, that he has known them to ſtop even in wheel-ruts in the middle of a down, and get up in the middle of the hounds. The greateſt danger of loſing the fox is at the firſt finding him, and when he is ſinking; at both which times he frequently runs ſhort, and the eagerneſs of the hounds will frequently carry them beyond the ſcent. When a fox is firſt found, every one ought to keep behind the hounds till they are well ſettled to the ſcent; and, when the hounds are catching him, our author wiſhes them to be as ſilent as poſſible; and likewiſe to eat him eagerly after he is caught. In ſome places they have a method of *treeing* him; that is, throwing him acroſs the branch of a tree, and ſuffering the hounds to bay at him for ſome minutes before he is thrown among them; the intention of which is to make them more eager, and to let in the tail-hounds; during this interval alſo they recover their wind, and are apt to eat him more readily. Our author, however, adviſes not to keep him too long, as he ſuppoſes that the

hounds have not any appetite to eat him, longer than while they are angry with him.

2. *Under-ground.* In caſe a fox does ſo far eſcape as to earth, countrymen muſt be got together with ſhovels, ſpades, mattocks, pickaxes, &c. to dig him out, if they think the earth not too great. They make their earths as near as they can in ground that is hard to dig, as in clay, ſtony ground, or among the roots of trees; and their earths have commonly but one hole, and that is ſtraight a long way in before you come at their couch. Sometimes craftily they take poſſeſſion of a badger's old burrow, which hath a variety of chambers, holes, and angles.

Now to facilitate this way of hunting the fox, the huntſman muſt be provided with one or two terriers to put into the earth after him, that is, to fix him into an angle; for the earth often conſiſts of many angles; the uſe of the terrier is to know where he lies; for as ſoon as he finds him, he continues baying or barking, ſo that which way the noiſe is heard, that way dig to him. Your terriers muſt be garniſhed with bells hung in collars, to make the fox bolt the ſooner; beſides, the collars will be ſome ſmall defence to the terriers.

The inſtruments uſed to dig with are theſe: a ſharp-pointed ſpade, which ſerves to begin the trench where the ground is hardeſt, and where broader tools will not ſo well enter; the round hollowed ſpade, which is uſeful to dig among roots, having very ſharp edges; the broad flat ſpade to dig with, when the trench has been pretty well opened, and the ground ſofter; mattocks and pickaxes to dig in hard ground, where a ſpade will do but little ſervice; the coal-rake to cleanſe the hole, and to keep it from ſtopping up; clamps, wherewith you may take either fox or badger out alive, to make ſport with afterwards. And it would be very convenient to have a pail of water to refreſh your terriers with, after they are come out of the earth to take breath.

For hunting the Buck, or Deer, *ſee* STAG-HUNTING; and for hunting the Boar, Badger, Otter, &c. *ſee under their reſpective heads.*

On the Choice of a Hunter.

A true high-bred horſe, of the racing kind, when very ſtrong, and full of bone, is by far the beſt calculated for making a capital hunter. Next to theſe, what are called half bred horſes are generally to be preferred, as they unite fleetneſs and ſtrength, are moſtly ſtaunch, and of good bottom. The ſhape of the horſe deſigned for this ſervice, ſhould be ſtrong and well knit together. Irregular or unequal ſhapes in theſe horſes are always a token of weakneſs. The inequalities in ſhape which ſhew a horſe improper for the chaſe, are the having a large head and a ſmall neck, a large leg and a ſmall foot, and the like. The true hunter ought to have ſtrength without weight, courage without fire, ſpeed without labour, a free breath, a ſtrong walk, a nimble, light, but a large, gallop, and ſweet trot, to give change and eaſe to the more ſpeedy muſcles. The marks moſt likely to diſcover a horſe of theſe properties are, a vigourous, ſanguine, and healthy colour, a head and neck as light as poſſible, whether handſome or not, a quick-moving eye and ear, clean wide jaws and noſtrils, large thin ſhoulders, and high withers, deep cheſt, and ſhort back, large ribs, and wide pin-bones, tail high and ſtiff, gaſkins well ſpread, and buttocks lean and hard; above all, let his joints be ſtrong and firm, and his legs and paſterns ſhort; for, I believe, there never was yet a long limber-legged horſe that was able to gallop down ſteep hills, and take bold leaps with a weight upon his back, without ſinking, foundering, or falling. The whole ſhape of a horſe intended for a hunter, ſhould be this: the ears ſhould be ſmall, open, and pricked; or, though they be ſomewhat long, yet if they ſtand up erect and bold, like thoſe of a fox, it is a ſign of toughneſs or hardineſs. The forehead ſhould be long and broad, not flat, or, as it is uſually termed, *mare-faced*, but riſing in the middle like that of a hare; the feather ſhould be placed above the eye, the contrary being thought by ſome to threaten blindneſs. The eyes ſhould be full, large, and bright; the noſtrils not only large, but looking red and freſh within; for an open and freſh noſtril is always eſteemed a ſign of good wind. The mouth ſhould be large, deep in the wicks, and hairy. The wind-pipe ſhould be large, and appear ſtraight when he bridles his head; for if, on the contrary, it bends like a bow on his bridling, it is not formed for a free paſſage of the breath. This defect in a horſe is expreſſed among the dealers by the phraſe *cock-throppled.* The head ſhould be ſo ſet on to the neck, that a ſpace may be felt between the neck and the chine; when there is no ſuch ſpace, the horſe is ſaid to be bull-necked; and this is not only a blemiſh in the beauty of the horſe, but it alſo occaſions his wind not to be ſo good. The creſt ſhould be ſtrong, firm, and well-riſen; the neck ſhould be ſtraight and firm, not looſe and pliant; the breaſt ſhould be ſtrong and broad, the ribs round like a barrel, the fillets large, the buttocks rather oval than broad, the legs clean, flat, and ſtraight; and, finally, the mane and tail ought to be long and thin, not ſhort and buſhy, the laſt being counted a mark of dulneſs. When a hunter is thus choſen, and has been taught ſuch obedience, that he will readily anſwer to the rider's ſignals both of the bridle and hand, the voice, the calf of the leg, and the ſpurs; that he knows how to make his way forward, and has gained a true temper of mouth, and a right placing of his head, and has learned to ſtop and to turn readily, if his age be ſufficiently advanced, he is ready for the field. It is a rule with all ſtaunch ſportſmen, that no horſe ſhould be uſed in hunting till he is full five years old; ſome will hunt them at four, but the horſe at this time is not come up to his true ſtrength and courage, and will not only fail at every tough trial, but will be ſubject to ſtrains and accidents of that kind, much more than if he were to be kept another year firſt; when his ſtrength would be more confirmed.

Of the Management of a Hunter.

When your hunter is five years old, he may be put to

to graſs from the middle of *May* to *Bartholomew-tide*; for the weather between theſe is ſo hot, that it will be very proper to ſpare him from work. At *Bartholomew-tide*, the ſtrength of the graſs beginning to be nipped by froſts and cold dews, ſo that it is apt to engender crudities in the horſe, he ſhould be taken up while his coat is yet ſmooth and ſleek, and put into the ſtable. When he is firſt brought home, he ſhould be put in ſome ſecure and ſpacious place, where he may evacuate his body by degrees, and be brought not all at once to the warm keeping; the next night he may be ſtabled up. It is a general rule with many not to clothe and ſtable up their horſes till two or three days after they are taken from graſs, and others who put them in the ſtable after the firſt night, yet will not dreſs and clothe them till three or four days afterwards; but all this, except the keeping the horſe one day in a large and cool place, is a needleſs caution.

There is a general practice among the grooms, in many places, of giving their hunters wheat-ſtraw as as ſoon as they take them up from graſs. They ſay they do this to make up their bellies; but there ſeems much reaſon to diſapprove of this. The change is very violent, and the nature of the ſtraw ſo heating and drying, that there ſeems great reaſon to fear that the aſtringent nature of it would be prejudicial, more than is at firſt perceived. It is always obſerved that the dung is hard after this food, and is voided with pain and difficulty, which is in general very wrong for this ſort of horſe. It is better, therefore, to avoid this ſtraw feeding, and to depend upon moderate airing, warm clothing, and good old hay and ſweet corn, than to have recourſe to any thing of this kind.

When the horſe has evacuated all his graſs, and has been properly ſhod, and the ſhoes have had time to ſettle to his feet, he may be ridden abroad, and treated in this manner: the groom ought to viſit him early in the morning, at five o'clock in the long days, and at ſix in the ſhort ones; he muſt then clean out the ſtable, and feel the horſe's neck, flank, and belly, to find the ſtate of his health. If the flank feels ſoft and flabby, there is a neceſſity of good diet to harden it, otherwiſe any great exerciſe will occaſion ſwellings and goutineſs in the heels. After this examination, a handful or two of old oats, well ſifted, ſhould be given him: this will make him have more inclination to water, and will alſo make the water ſit better on his ſtomach, than if he drank faſting. After this he is to be tied up and dreſſed. If in the doing of this he opens his mouth, as if he would bite, or attempts to kick at the perſon, it is a proof that the teeth of the curry-comb are too ſharp, and muſt be filed blunter. If, after this, he continues the ſame tricks, it is through wantonneſs, and he ſhould be corrected for it with the whip. The intent of currying being only to raiſe the duſt, this is to be bruſhed off afterwards with a horſe-tail nailed to a handle, or any other light bruſh. Then he is to be rubbed down with the bruſh, and duſted a ſecond time; he ſhould then be rubbed over with a wet hand, and all the looſe hairs, and whatever foulneſs there is, ſhould be picked off. When this is done, and he is wiped dry as at firſt, a large ſaddle-cloth is to be put on, reaching down to the ſpurring place; then the ſaddle is to be put on, and a cloth thrown over it that he may not take cold: then rub down his legs, and pick his feet with an iron-picker, and let the mane and tail be combed with a wet mane-comb. Laſtly, it is a cuſtom to ſpurt ſome beer in his mouth juſt before the leading him out of the ſtable. He ſhould then be mounted, and walked a mile at leaſt to ſome running water, and there watered; but he muſt only be ſuffered to take about half his water at one drinking.

It is the cuſtom of many to gallop the horſe at a violent rate as ſoon as he comes out of the water; but this is extremely wrong for many reaſons. It endangers the breaking a horſe's wind more than any other practice, and often has been the occaſion of burſting very good horſes. It uſes them alſo to the diſagreeable trick we find in many horſes, of running away as ſoon as ever they come out of the water: and with ſome it makes them averſe to drinking, ſo that they will rather endure thirſt, and hurt themſelves by it, than bring on the violent exerciſe which they remember always follows it. The better way is to walk him a little after he is out of the water, then put him to a gentle gallop for a little while, and after this to bring him to the water again. This ſhould be done three or four times, till he will not drink any more. If there is a hilly place near the watering-place, it is always well to ride up to it; if otherwiſe, any place is to be choſen where there is free air and ſun. That the horſe may enjoy the benefit of this, he is not to be galloped, but walked about in this place an hour, and then taken home to the ſtable. The pleaſure the horſe himſelf takes in theſe airings, when well managed, is very evident; for he will gape, yawn, and ſhrug up his body: and in theſe, whenever he would ſtand ſtill to ſtale, dung, or liſten to any noiſe, he is not to be hindered from it, but encouraged in every thing of this kind.

The advantages of theſe airings are very evident; they purify the blood, teach the horſe how to make his breathing agree with the reſt of the motions of his body, and give him an appetite to his food, which hunters and racers that are kept ſtalled up are otherwiſe very apt to loſe. On returning from airing, the litter of the ſtable ſhould be freſh, and by ſtirring this and whiſtling he will be brought to ſtale. Then he is to be led to his ſtall, and tied up, and again carefully rubbed down; then he ſhould be covered with a linen cloth next his body, and a canvas one over that, made to fit him, and reaching down to his legs. This, as the duke of Newcaſtle obſerves, is a cuſtom which we learned of the Turks, who are, of all people, the moſt nice and careful of their horſes. Over this covering there ſhould be put a body-cloth of ſix or eight ſtraps; this keeps his belly in ſhape, and does not hurt him. This clothing will be ſufficient while the weather is not very ſharp; but in ſevere ſeaſons, when the hair begins to riſe and ſtart in the uncovered parts, a woollen cloth is to be added, and this will always prove fully ſufficient.

Different horſes, and different ſeaſons, make a variety in the degree of clothing neceſſary; but there always

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is an obvious rule to point out the neceſſary changes, the roughneſs of the coat being a mark of the want of clothing, and the ſmoothneſs of it a proof that the clothing is ſufficient. Therefore if at any time the hair is found to ſtart, it is a notice that ſome further clothing is to be added.

If the horſe ſweat much in the night, it is a ſign that he is over-fed and wants exerciſe; this, therefore, is eaſily remedied. An hour or more, after the horſe is come in from his airing, the groom ſhould give him a wiſp of clean hay, making him eat it out of his hand; after this let the manger be well cleaned out, and a quartern of oats clean ſifted be given him. If he eats up this with an appetite, he ſhould have more given him; but, if he is ſlow and indifferent about it, he muſt have no more. The buſineſs is to give him enough, but not to cloy him with food.

If the horſe gets fleſh too faſt on this home feeding, he is not to be ſtinted to prevent it, but only his exerciſe increaſed; this will take down his fleſh, and at the ſame time give him ſtrength and wind. After the feeding in the morning is over, the ſtable is to be ſhut up, only leaving him a little hay on his litter. He need be no more looked at till one o'clock, and then only rubbed down, and left again to the time of his evening watering, which is five o'clock in the ſummer, and four in the winter. When he has been watered, he muſt be kept out an hour or two, if neceſſary, and taken home and rubbed as after the morning watering. Then he is to have a feed of corn at ſix o'clock, and another at nine at night; and being then cleaned, and his litter put in order, and hay enough left for the night, he is to be left till morning. This is the direction for one day, and in this manner he is to be treated every day for a fortnight; at the end of which time his fleſh will be ſo hardened, his wind ſo improved, and his mouth ſo quickened, and his gallop brought to ſo good a ſtroke, that he will be fit to be put to moderate hunting. During the time that he is uſed to hunting, he muſt be ordered on his days of reſt exactly as he is directed for the fortnight when he is in preparation; but, as his exerciſe is now greatly increaſed, he muſt be allowed more ſtrengthening food, mixing ſome old ſplit beans at every feeding with his oats.

And, if this is not found to be ſufficient, the following bread muſt be given: let two pecks of old beans and one peck of wheat be ground together, and made into an indifferently fine meal; then knead it into dough with ſome warm water and a good quantity of yeaſt; let it lie a time that it may riſe and ſwell, which will make the bread the lighter; then make it into loaves of a peck each, and let it be baked in a ſlow oven, that it may be thoroughly done without being burnt; when it is taken out of the oven, it muſt be ſet bottom upwards to cool: when it is one day old the cruſt is to be chipped off, and the crumb given him for food. When this is ready, he ſhould have ſome of it at leaſt once a day; but it is not to be made the only food, but ſome feeds are to be of oats alone, ſome of oats and this bread, and ſome of oats and beans mixed together. The making a variety in this manner being the beſt of all methods of keeping up the appetite, which is often apt to fail.—The day before the horſe is to hunt, he muſt have no beans, becauſe they are hard of digeſtion, but only ſome oats with this bread; or, if he will be brought to eat the bread alone, that will be beſt of all. His evening feed ſhould on this day be ſomewhat earlier than uſual; and he ſhould be viſited the next morning at about four o'clock, when put a quarter of a peck of clean-dreſſed oats into his locker, pouring into it a quart of good ſtrong toaſt and ale, mixing the whole well together. When he has done eating, bridle him, and tie him up to the ring and dreſs him: having dreſſed, ſaddle him, throwing his cloth over him, and let him ſtand till the hounds are ready to go out. Take care not to draw the ſaddle-girths too tight till you are ready to mount, leſt that ſhould cauſe him to grow ſick. When the hounds are unkennelled, (which ſhould not be before ſun-riſing,) go into the field along with them, and ride your horſe gently up and down, till a hare is ſtarted, when you are to follow the hounds as the other hunters do; but, remembering it to be the firſt time of his hunting, he is not ſo well acquainted with different ſorts of grounds as to know how to gallop ſmoothly and with eaſe upon them; and for that reaſon you ought not to put him to above half his ſpeed, that he may learn to carry a ſteady body, and to manage his legs both upon fallows and green ſwarth. Neither ſhould you gallop him often, or any long time together, for fear of diſcouraging him, and cauſing a diſlike to this exerciſe; and take care to croſs fields to the beſt advantage. You ſhould make up to the hounds at every default, and ſtill keep your horſe within the cry of the hounds, that he may be uſed to the ſound; and by ſo doing, in a very ſhort time he will take ſuch delight and pleaſure in their muſic, that he will ever after be eager to follow them.

When the chaſe is led over any carpet-ground, or ſandy highway, on which your horſe may lay out his body ſmoothly, there you may gallop him for half a mile, to teach him to lay out his body, to gather up his legs, to lengthen and ſhorten his ſtroke, according to the different earths he gallops on, ſuch as green ſwarth, meadow, moor, heath, &c. then to ſtoop and run more on the ſhoulders; if amongſt mole-hills, or over high ridges and furrows, then to gallop more roundly, or in leſs compaſs, that thereby he may ſtrike his furrow clear, and avoid ſetting his fore-feet in the bottom of it, and by that means fall over; for, though he ſhould happen to ſet his feet in a furrow, yet carrying his body ſo round, and reſting on the hand in his gallop, would prevent his falling; and to this perfection, nothing but uſe, and ſuch moderate exerciſe, can bring him.

Acocrding to theſe directions you may hunt till about three o'clock in the day, at which time ride him home in a foot-pace, as you came out in the morning; and be ſure that you let him walk out of the field; and, as you are going home, conſider whether he has ſweat a little, (for you muſt not let him ſweat much the firſt time;) but, if not, then gallop him gently on ſome ſkelping earth, till he ſweats at the roots of his ears, a little on his neck, and in his flank; but it muſt be done

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of his own voluntary motion, without the compulſion of whip or ſpur; then have him home and ſtable him, and by no means walk him in hand to cool him, for fear of his cooling too faſt; nor walk him, for fear of cauſing an obſtruction of the natural courſe of the humours, and by that means bring an inflammation in his legs, which is the original cauſe of the ſcratches.

His ſtall being well littered againſt he comes home, ſet him up, tying his head to the ring with the bridle, and then rub him well with dry ſtraw all over his head, neck, fore-bowels, belly, flank, buttocks, and legs, and after that rub his body with a dry cloth, till he has not a wet hair left about him; after you have done, take off his ſaddle, and rub the place where the ſaddle was, dry in like manner, and clothe him immediately with his ordinary clothes, leſt he take cold: and, if you ſuppoſe him very hot, throw a ſpare cloth over him, that he may not cool too faſt, which you may abate when you pleaſe, and ſo let him ſtand on his ſnaffle two hours or better, now and then ſtirring him in his ſtall with your whip, to prevent him from growing ſtiff in the legs and joints.

When that time is expired, and you think him thoroughly cool, draw his bridle, rub his head, pick his feet from dirt or gravel, and give him a quart or three pints of ſifted oats, mixed with a handful of clean dreſſed hemp-ſeed; but give him not more than the quantity preſcribed, for fear of taking away his ſtomach, which will be very much weakened through the heat of his body, and want of water. Then take off the ſpare cloth for fear of keeping him hot too long, and, when he has eaten his corn, throw a good quantity of hay, clean duſted, on his litter, and let him reſt two or three hours, or thereabouts. Having prepared him a good maſh made of half a peck of malt, well ground, and boiling hot water, ſo much as the malt will ſweeten and the horſe will drink, ſtir them well together, and cover it over with a cloth, till the water has extracted the ſtrength of the malt, which will be almoſt as ſweet as honey, and feel ropy, like bird lime; being but little more than blood warm give it to the horſe, but not before, leſt the ſteam go up his noſtrils and offend him; and, when he has drank up his water, let him, if he pleaſe, eat the malt too. But, if he refuſes to drink it, you muſt not give him any other water that night, but place this drink in ſome part of his ſtall, ſo that he may not throw it down, and let it ſtand by him all night, that he may drink it when he pleaſes. This maſh, or, as it is called, horſe-caudle, will comfort his ſtomach, and keep his body in a due temperate heat after his day's hunting; it will cleanſe and bring away all manner of greaſe and groſs humours which have been diſſolved by the day's labour; and the fume of the malt-grains, after he has drank the water, will diſperſe the watery humours, which might otherwiſe annoy his head, and is allowed, by all ſkilled in horſes, to be very advantageous on that account.

After he has eaten his maſh, ſtrip him of his clothes, and run him over with a curry-comb and bruſh, hair-patch, and woollen-cloth, and clothe him up again; and cleanſe his legs, as well as his body, of all dirt and filth which may annoy them, and then remove him into another ſtall, (that you may not wet his litter) and bathe his legs all over from the knees, with warm beef-broth, or with a quart of warm urine, in which four ounces of ſaltpetre has been diſſolved; then rub his legs dry, ſet him again to his ſtall, and give him a good home-feeding of oats, or bread, which he likes beſt, or both; and, having ſhaken a good quantity of litter under him, that he may reſt the better, and thrown him hay enough in his rack for all night, ſhut the ſtable door cloſe, and leave him to reſt till the morning.

About ſix or ſeven o'clock the next morning go to him again, but do not diſturb him, for the morning's reſt is as refreſhing to a horſe as to a man; but, when he riſes of his own accord, go to him, put back his dung from his litter, and obſerve what colour it is of, whether it be greaſy, and ſhine outwardly, and alſo break it with your feet, to ſee if it be ſo inwardly, for, if it be greaſy and foul, (which you may know by its ſhining outwardly, and by the ſpots like ſoap that will appear within) or if it appear of a dark brown colour, and harder than it was, it is a token that the hunting of the day before has done him good, by diſſolving part of the inward glut which was within him; and, therefore, the next time you hunt, you ſhould increaſe his labour but a little. But if you perceive no ſuch ſymptoms, but that his dung appears bright, but rather ſoft than hard, without greaſe, and in a word, that it holds the ſame pale yellow colour that it did before he hunted, then it is a ſign that a day's hunting made no diſſolution, but that his body remains in the ſame ſtate ſtill, and, therefore, the next day's hunting, you may almoſt double his labour.

As to his feeding, you muſt not forget to change his food, by giving him one while bread, another oats, and a third time oats and beans, which you find he likes likes beſt; always remembering, that variety will ſharpen his appetite; and bread being his chief food, it being more nouriſhing and ſtrong than the others, feed him the oftener with it. And obſerve his digeſtion, whether it be quick or ſlow. If you find him quick, and that he retains this food but a little while, then only chip his bread lightly; but if it be ſlow, and he retains it long, then cut away all the cruſt, and feed him only with the crumb; for that, being light of digeſtion, is ſoon converted into chyle and excrements, but the cruſt being not ſo ſoon digeſtible, requires, by reaſon of its hardneſs, longer time before it is concocted.

The next day, after your horſe has reſted, you may hunt him again as you did the firſt day, obſerving, from the remarks you have made, to hunt him, more or leſs, according as you find his temper and conſtitution; and when you come home, put in practice the rules above given; under which you may hunt him three times a week for a fortnight together, but do not fail to give him his full feeding, and no other ſcourings but maſhes and hemp-ſeed, which is equal in its virtue with the former, and only carries off ſuperfluous humours in the dung.

Horſes at advanced ſtages are ſubject to diſorders, for which briſk purges are recommended, and require a more

more peculiar mode of counteraction; as horſes ſubject to, or labouring under, inveterate cracks in the heels; oozing indications of or palpable greaſe; cutaneous eruptions, vaſcular knots, or tubercles, the evident effects of plenitude; worms, or fluctuating pains in the limbs, occaſioning alternate lameneſs in one part or another. In all which caſes it is to be obſerved, horſes ſhould never have their exerciſe increaſed to the leaſt degree of violent exertion. If the horſes have not ſix or eight miles to the hounds on the morning of hunting, they ſhould be walked at leaſt an hour, or an hour and a half, before they appear at the place of meeting: the conſiſtency of their having ſufficient time to unload the frame, by frequency of evacuation, is extremely evident. The firſt burſt, with either deer or fox, is generally ſevere, and not unfrequently of long duration, in which too much tenderneſs cannot be beſtowed upon your horſe: from whoſe perfections and perſeverance only, you can derive the enjoyment of the chaſe; and the more moderately a horſe is exerted in the early part of the day, the greater probability you inſure of ſeeing the end of it.

On your return from hunting (whether after a long or ſhort chaſe), the mode of management is critically the ſame; your horſes legs and feet ſhould be immediately waſhed with warm water: and, at the ſame time, inſpected, whether they have received any injury by over-reaches, ſtubs, or in lacerations between hair and hoof; while this is doing, let a portion of hay be laid before him, and immediately after a pail full of water ſlightly warm, and then let the uſual ceremony of dreſſing, feeding, oiling, ſtopping, and other minutiæ of the ſtable, be gone through.

By this time the horſe will be drawn ſo clean, his fleſh will be ſo enſeamed, and his wind ſo improved, that he will be able to bear a chaſe of three or four miles without blowing or ſweating; and you may find by his caul and flank, as well as his ribs, that he is in an indifferent good ſtate of body, and therefore you muſt increaſe his labour, and by that means you can judge what he will be able to do, and whether or no he will ever be fit for running for plates, or match.

When your horſe is ſet over-night, and fed early in the morning, as has been directed, then go into the field with him, and when he is empty, (as he will be by the time you have ſtarted your game) follow the hounds at a good round rate, as at have ſpeed, and ſo continue till you have either killed or loſt your firſt hare. This will ſo rack your horſe, and he will have ſo emptied himſelf, that he will be in a fit condition to be rid the next chaſe briſkly, which, as ſoon as it is begun, you may follow the hounds at three-quarters ſpeed, and as near as is fit for a good horſeman and ſkilful huntſman; but be ſure to take care not to ſtrain him.

During this day's riding, you ought to obſerve nicely your horſe's ſweat under his ſaddle and fore-bowels, and if it appears white, like froth or ſoap-ſuds, it is a ſign of inward glut and foulneſs, and that your day's exerciſe was enough for him, therefore ride him home, and order him as before directed. But, if it has happened that your exerciſe has been ſo eaſy as not to ſweat your horſe thoroughly, then you ought to ride him briſkly, and afterwards cool him in the field; then ride him home, and order him as has been before directed.

When you take off your horſe's bridle, give him a good quantity of rye-bread, inſtead of hemp-ſeed and oats, and for that purpoſe bake a peck-loaf; for, this being cold and moiſt, will be of uſe to cool his body after his labour, and prevent coſtiveneſs, to which you will find him addicted; then give him hay, and afterwards a maſh, and order him in all things as before. The next morning, if you perceive by his dung that his body is diſtempered, and that he is hard and bound, then take ſome crumbs of your rye-bread, and work it with as much ſweet freſh butter as will make it into a paſte, and make it up into balls about the bigneſs of a large walnut, of which give him five or ſix in a morning faſting. After this put the ſaddle on, and gallop him gently on ſome graſs-plat or cloſe that is near at hand, till he begin to ſweat under his ears; and then take him into the ſtable again, rub him well, and throw a ſpare cloth over him, a good quantity of freſh litter under him, and let him ſtand two hours on the bridle; give him a quantity of rye-bread, and ſome hay to chew upon, and give him a warm maſh, feed him with bread and corn as much as he will eat, and alſo as much hay as he will eat. The next day water him abroad, and order him as is before directed for days of reſt. The next day you may hunt him again, but not ſo hard as you did the time before, till the afternoon; but then ride him after the hounds briſkly, three-quarter ſpeed, that he may ſweat heartily: then cool him a little, and ride him home, and, as ſoon as he is come into the ſtable, give him two or three balls, as big as walnuts, of the following excellent ſcouring: Take of butter, eight ounces; lenitive electuary, four ounces; gromwel, broom, and parſley-ſeeds, of each two ounces; anniſeeds, liquorice, and cream of tartar, of each one ounce; of jalap, two ounces; reduce the ſeeds to a powder, then ſtir them into a paſte with the electuary and butter, knead it well together, put it into a pot, and keep it cloſe ſtopped for uſe.

As ſoon as the horſe has taken theſe balls, rub him dry, dreſs him, clothe him warm, let him ſtand two or three hours upon the ſnaffle; afterwards give him two or three handfuls of rye-bread, and order him as you been directed before, as to hay, provender, maſh, &c. and ſo leave him till next morning.

In the morning take notice of his dung, whether it ſtill retain the true colour, or be dark, or black, or red and high-coloured: in the next place, whether it be looſe and thin, or hard and dry. If it be of a pale yellow, which is the right colour, it is a ſign of health, ſtrength, and cleanlineſs; if it be dark or black, then it is a ſign there is greaſe and other ill humours ſtirred up, which are not yet evacuated: if it be red and high-coloured, then it is a ſign that his blood is feveriſh and diſtempered, by means of inward heat: if it be looſe and thin, it is a ſign of weakneſs; but if hard and dry, it ſhews the horſe to be hot inwardly, or elſe that he is a foul feeder: but if his dung be in a medium, between hard and ſoft, and ſmell ſtrong, it is a ſign of

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health and vigour. When theſe obſervations have been made, then feed, dreſs, water, &c. as on his uſual days of reſt, always letting him have variety, and his fill of corn and bread.

The next day take him abroad into the fields again, but do not by any means put him to any labour more than riding him gently after the hounds; for the intent of this day's exerciſe is only to keep him in breath, and procure him an appetite. When the day is near ſpent, ride him home without the leaſt ſweat, and then order him as at other times, except that you are not to give him any ſcourings, or rye-bread. The next day order him in every reſpect as on other days of reſt; and, as you have ſpent this week, you muſt ſpend the next, without any alteration; and by this time, and this management, you may depend upon it that your horſe has been drawn clean enough for ordinary hunting. So that afterwards, only taking care to hunt your horſe with moderation twice or three times a week, at your pleaſure; and according to the conſtitution of your horſe's body; you need not queſtion to have him in as good ſtate and ſtrength as you can deſire, without danger of his wind, eye-ſight, feet, or body.

Having thus drawn your horſe clean, jointly by nature and art, you will perceive thoſe ſigns before-mentioned very plainly; for his fleſh on his ſhort ribs and buttocks will be as hard as brawn, his flanks will be thin, and nothing to be felt but a double ſkin, and chaps ſo clean from fat, glot, or kernels, that you may hide your fiſts in them; and, above all, his exerciſe will give plain demonſtration, of the efficacy of this method of ordering him, for he will run three or four miles, three-quarters ſpeed, without ſweating, or ſcarce ſo much as blowing. When the horſe has been brought to this ſtate, you muſt uſe no more ſcourings after hunting, becauſe nature has nothing to work upon but rye-bread and maſh, except the horſe be now and then troubled with ſome little dulneſs in his head; then bruiſe a little muſtard-ſeed in a fine linen rag, and ſteep it in a quart of ſtrong ale three or four hours, and, untying the rag, mix the muſtard-ſeed and the ale with a quarter of a peck of oats, and give it to him.

In general, after your horſe is thus brought into perfect hunting order, there is nothing ſo well calculated for comforting and giving him wind and courage, as toaſted bread and wine, or toaſted bread and ale, juſt before going out of the ſtable. This was the practice of an old huntſman of mine, who, though ſometimes obliged to put up with an indifferent horſe, was, by this method, always ſure to be in at the death.

If, after hunting or racing, your horſe ſhould take a violent cold, which will ſometimes unavoidably happen, let the following comfortable drench be given. Take a pint of ale and ſet it over a gentle fire, then diſſolve in it one ounce of Spaniſh liquorice, and one ounce of ſugar-candy, put in one ounce of true diapente made with myrrh, one ounce of anniſeed powder, one ounce of London treacle, two ounces of ſweet-oil, and two drachms of balſam of ſulphur. A famous running horſe, belonging to GERMANICUS SHEPPARD, Eſq. was cured by this receipt of a moſt violent cold, and bleeding at the noſe, that had been of near twelve months ſtanding. The above gentleman gave it me on a promiſe that I ſhould not part with it to any other perſon during his life, or while he kept running-horſes. He had himſelf procured it by art, having offered his groom (in whoſe cuſtody it was) ten guineas for it; but, on his refuſing to take the money, he employed his under-groom to watch an opportunity of taking a copy of it, which he did ſhortly afterwards. I have frequently adminiſtered it to my hunters, and it has never been known to fail in its efficacy.

Of the Management of Hounds.

Before we ſpeak of the methods proper to be uſed for this purpoſe, it will be neceſſary to point out the qualities which ſportſmen deſire to meet with in theſe animals. It is generally underſtood, that hounds of the middle-ſize are the moſt proper, it being remarked, that all animals of that deſcription are ſtronger than either ſuch as are very ſmall or very large. The ſhape of the hound ought to be particularly attended to; for, if he be not well proportioned, he can neither run faſt nor do much work. His legs ought to be ſtraight, his feet round, and not very large; his ſhoulders back; his breaſt rather wide than narrow; his cheſt deep, his back broad, his head ſmall, his neck thin; his tail thick and buſhy, and if he carry it well ſo much the better. None of thoſe young hounds which are *out at the elbows*, or ſuch as are weak from the knee to the foot, ſhould ever be taken into the pack. That the pack may look well, it is proper that the hounds ſhould be as much as poſſible of a ſize; and, if the animals be handſome at the ſame time, the pack will then be perfect. It muſt not, however, be thought, that this contributes any thing to the goodneſs of a pack; for very unhandſome packs, conſiſting of hounds entirely different in ſize and colour, have been known to afford very good ſport. It is only neceſſary that they ſhould run well together; to which indeed an uniformity in ſize and ſhape would ſeem to contribute in ſome degree. The pack that can run ten miles, or any other conſiderable ſpace, in the ſhorteſt time, may be ſaid to go faſteſt, though the hounds, taken ſeparately, might be conſiderably inferior to others in ſwiftneſs. A pack of hounds, conſidered in a collective body, go faſt in proportion to the excellence of their noſes, and the head they carry. Packs which are compoſed of hounds of various kinds ſeldom run well. When the packs are very large, the hounds are ſeldom ſufficiently hunted to be good; twenty or thirty couple, therefore, or at moſt forty, will be abundantly ſufficient for the keeneſt ſportſman in this country, as thus he may be enabled to hunt three or even four times a week. The number of hounds to be kept muſt, however, in a conſiderable degree, depend on the ſtrength of the pack, and the country in which you hunt. They ſhould be left at home as ſeldom as poſſible; and too many old hounds ſhould not be kept. None ought to be kept above five or ſix ſeaſons, though this alſo is ſomewhat uncertain, as we have no rule for judging how long a hound will laſt.

In breeding of hounds conſiderable attention ought to be paid to the dog from whom you breed. All ſuch are to be rejected as have a tender noſe, as are babblers or ſkirters. An old dog ſhould never be put to an old bitch; nor ſhould any attempts be made to croſs the breed unleſs in a proper and judicious manner. Mr. BECKFORD informs us, that he has ſeen fox-hounds bred out of a Newfoundland dog and a fox-hound bitch; the whelps were monſtrouſly ugly, and had other bad qualities beſides. The croſs moſt likely to be of ſervice to a fox-hound is the beagle. The reaſon of croſſing the breed ſometimes is, that the imperfections of one may ſometimes be remedied by another. The months of *January*, *February*, and *March*, are the beſt for breeding; late puppies ſeldom thrive. After the females begin to grow big with young, it will not be proper to let them hunt any more, or indeed to remain for a much longer time in the kennel. Sometimes theſe animals will have an extraordinary number of whelps. Mr. BECKFORD informs us, that he has known a bitch have fifteen puppies at a litter; and he aſſures us, that a friend of his informed him, that a hound in his pack brought forth ſixteen, all of them alive. In theſe caſes it is proper to put ſome of the puppies to another bitch, if you want to keep them all; but, if any are deſtroyed, the beſt coloured ought to be kept. The bitches ſhould not only have plenty of fleſh, but milk alſo; and the puppies ſhould not be taken from them till they are able to take care of themſelves: their mothers will be relieved when they learn to lap milk, which they will do in a ſhort time. After the puppies are taken away from their mothers, the litter ſhould have three purging-balls given them, one every other morning, and plenty of whey the intermediate day. If a bitch bring only one or two puppies, and you have another that will take them, by putting the puppies to her the former will ſoon be fit to hunt again. She ſhould, however, be firſt phyſicked, and it will alſo be of ſervice to anoint her dugs with brandy and water.

Whelps are very liable to the diſtemper to which dogs in general are ſubject, and which frequently makes great havock among them at their walks; and is ſuppoſed, by Mr. BECKFORD, to be owing to the little care that is taken of them. "If the diſtemper (ſays he) once gets among them, they muſt all have it: yet, notwithſtanding that, as they will be conſtantly well fed, and lie warm (in a kennel built on purpoſe) I am confident it would be the ſaving of many lives. If you ſhould adopt this method, you muſt remember to uſe them early to go in couples: and, when they become of a proper age, they muſt be walked out often; for, ſhould they remain confined, they would neither have the health, ſhape, or underſtanding, which they ought to have. When I kept harriers, I bred up ſome of the puppies at a diſtant kennel; but, having no ſervants there to exerciſe them properly, I found them much inferior to ſuch of their brethren as had the luck to ſurvive the many difficulties and dangers they had undergone at their walks; theſe were afterwards equal to any thing, and afraid of nothing; whilſt thoſe, that had been nurſed with ſo much care, were weakly, timid, and had every diſadvantage attending private education. I have often heard, as an excuſe for hounds not hunting a cold ſcent, that they were too high-bred. I confeſs I know not what that means: but this I know, that hounds are too frequently ill-bred to be of any ſervice. It is judgment in the breeder, and patience afterwards in the huntſman, that makes them hunt.

"When young hounds are firſt taken in, they ſhould be kept ſeparate from the pack; and, as it will happen at a time of the year when there is little or no hunting, you may eaſily give them up one of the kennels and graſs-court adjoining. Their play frequently ends in a battle; it therefore is leſs dangerous where all are equally matched.—If you find that they take a diſlike to any particular hound, the ſafeſt way will be to remove him, or it is probable they will kill him at laſt. When a feeder hears the hounds quarrel in the kennel, he halloos to them to ſtop them; he then goes in among them, and flogs every hound he comes near. How much more reaſonable, as well as efficacious, would it be, were he to ſee which were the combatants before he ſpeaks to them. Puniſhment would then fall, as it ought, on the guilty only. In all packs there are ſome hounds more quarrelſome than the reſt; and it is to them we owe all the miſchief that is done. If you find chaſtiſement cannot quiet them, it may be prudent to break their holders; for, ſince they are not neceſſary to them for the meat they have to eat, they are not likely to ſerve them in any good purpoſe. Young hounds ſhould be fed twice a day, as they ſeldom take kindly to the kennel-meat at firſt, and the diſtemper is moſt apt to ſeize them at this time. It is better not to round them till they are thoroughly ſettled; nor ſhould it be put off till the hot weather, for then they would bleed too much. It may be better perhaps to round them at their quarters, when about ſix months old; ſhould it be done ſooner, it would make their ears tuck up. The tailing of them is uſually done before they are put out; it might be better, perhaps, to leave it till they are taken in. Dogs muſt not be rounded at the time they have the diſtemper upon them, as the loſs of blood will weaken them too much.

"If any of the dogs be thin over the back, or any more quarrelſome than the reſt, it will be of uſe to cut them: I alſo ſpay ſuch bitches as I ſhall not want to breed from: they are more uſeful, are ſtouter, and are always in better order; beſides, it is abſolutely neceſſary if you hunt late in the ſpring, or your pack will be very ſhort for want of it. The latter operation, however, does not always ſucceed; it will be neceſſary therefore to employ a ſkilful perſon, and one on whom you can depend; for, if it be ill done, though they cannot have puppies, they will go to heat notwithſtanding. They ſhould be kept low for ſeveral days before the operation is performed, and muſt be fed on thin meat for ſome time after."

It is impoſſible to determine how many young hounds ought to be bred in order to keep up the pack, as this depends altogether on contingencies. The deficiencies of one year muſt be ſupplied by the next: but it is probable, that from thirty to thirty-five couple of old hounds, and from eight to twelve couple of young ones, will anſwer the purpoſe where no more than forty couple

couple are to be kept. A conſiderable number, however, ought always to be bred; for it is undoubtedly and evidently true, that thoſe who breed the greateſt number of hounds muſt expect the beſt pack.

After the hounds have been rounded, become acquainted with the huntſman, and anſwer to their names, they ought to be coupled together, and walked out among ſheep. Such as are particularly ill-natured ought to have their couples looſe about their necks in the kennel till they become reconciled to them. The moſt ſtubborn ought to be coupled to old hounds, rather than to young ones; and two dogs ſhould not be coupled together when you can avoid it. As young hounds are awkward at firſt, a few ought only to be ſet out at a time with people on foot, and they will ſoon afterwards follow a horſe. When they have been walked out often in this manner amongſt the ſheep, they ſhould be uncoupled by a few at a time, and thoſe chaſtiſed who offer to run after the ſheep; but it will be difficult to reclaim them after they have once been allowed to taſte blood. Some are accuſtomed to couple the dogs with a ram, in order to break them from ſheep; but this is very dangerous for both parties. Mr. BECKFORD relates a ſtory of a nobleman who put a large ram into his kennel in order to break his hounds from ſheep: but, when he came ſome time after to ſee how nobly the ram defended himſelf, he found him entirely eaten up, and the hounds gone to ſleep after having filled their bellies.

When hounds are to be aired, it is beſt to take them out ſeparately, the old ones one day, and the young another; though, if they are to have whey from a diſtant dairy, both old and young ones may be taken out together, obſerving only to take the young hounds in couples when the old ones are along with them. Young hounds are always apt to fall into miſchief, and even old ones, when idle, will be apt to join them. Mr. BECKFORD mentions a whole pack running after a flock of ſheep through the mere accident of a horſe's falling, and then running away.

With regard to the firſt entering of hounds to a ſcent, our author gives ſuch directions as have ſubjected him to a ſevere charge of inhumanity. We ſhall give them in his own words; "You had better enter them at their own game; it will ſave much trouble afterwards. Many dogs, I believe, like that ſcent beſt which they were firſt blooded to: but, be this as it may, it is moſt certainly reaſonable to uſe them to that which it is intended they ſhould hunt. It may not be amiſs firſt, when they begin to hunt, to put light collars on them. Young hounds may eaſily get out of their knowledge; and ſhy ones, after they have been much beaten, may not chooſe to return home. Collars, in that caſe, may prevent their being loſt.—You ſay, you like to ſee your young hounds run a trail-ſcent.—I have no doubt but that you would be glad to ſee them run over an open down, where you could ſo eaſily obſerve their action and their ſpeed. I cannot think the doing of it once or twice could hurt your hounds; and yet, as a ſportſman, I dare not recommend it to you. All that I can ſay is, that it would be leſs bad than entering them at a hare. A cat is as good a trail as any; but on no account ſhould any trail be uſed after your hounds are ſtooped to a ſcent. I know an old ſportſman who enters his young hounds firſt at a cat, which he drags along the ground for a mile or two, at the end of which he turns out a badger, firſt taking care to break his teeth: he takes out about a couple of old hounds along with the young ones to hold them on. He never enters his young hounds but at vermin; for, he ſays, "Train up a child in the way that he ſhould go, and when he is old he will not depart from it!"

Hounds ought to be entered as ſoon as poſſible, though the time muſt be uncertain, as it depends on the nature of the country in which they are. In corn countries hunting may not be practicable till the corn is cut down; but you may begin ſooner in graſs-countries, and at any time in woodlands. "If (ſays Mr. BECKFORD) you have plenty of foxes, and can afford to make a ſacrifice of ſome of them for the ſake of making your hounds ſteady, take them firſt where you have leaſt riot, putting ſome of the ſteadieſt of your old hounds among them. If in ſuch a place you are fortunate enough to find a litter of foxes, you may aſſure yourſelf you will have but little trouble with your young hounds afterwards. If, owing to a ſcarcity of foxes, you ſhould ſtoop your hounds at a hare, let them by no means have the blood of her; nor, for the ſake of conſiſtency, give them encouragement. Hare-hunting has one advantage;—hounds are chiefly in open ground, where you can eaſily command them; but, notwithſtanding that, if foxes be in tolerable plenty, keep them to their own game.—Frequent hallooing is of uſe with young hounds; it keeps them forward, prevents their being loſt, and hinders them from hunting after the reſt. The oftener, therefore, that a fox is ſeen and hallooed, the better. I by no means, however, approve of much hallooing to old hounds; though it is true there is a time when hallooing is of uſe, a time when it does hurt, and a time when it is perfectly indifferent: but long practice and great attention to hunting can only teach the application.

"Hounds at their firſt entrance cannot be encouraged too much. When they are become handy, love a ſcent, and begin to know what is right, it will be then ſoon enough to chaſtiſe them for what is wrong; in which caſe one ſevere beating will ſave a great deal of trouble. When a hound is flogged, the whipper-in ſhould make uſe of his voice as well as his whip. If any be very unſteady, it will not be amiſs to ſend them out by themſelves when the men go out to exerciſe their horſes. If you have hares in plenty, let ſome be found ſitting, and turned out before them; and you will find that the moſt riotous will not run after them. If you intend them to be ſteady from deer, they ſhould often ſee deer, and then they will not regard them; and if, after a probation of this kind, you turn out a cub before them, with ſome old hounds to lead them on, you may aſſure yourſelf, they will not be unſteady long."

It is proper to put the young hounds into the pack when they ſtoop to a ſcent, become handy, know a rate, and ſtop eaſily. A few only are to be put to the pack at a time; and it is not adviſeable even to begin this till the pack have been out a few times by themſelves, and

"are gotten well in blood." They ſhould be low in fleſh when you begin to hunt; the ground being generally hard at that time, ſo that they are liable to be ſhaken. By hounds being handy, our author means their being ready to do whatever is required of them; and, particularly, when caſt, to turn eaſily which way the huntſman pleaſes.

Mr. BECKFORD begins to hunt with his young hounds in *Auguſt*. The huntſman in the preceding months keeps his old hounds healthy by giving them proper exerciſe, and gets his young hounds forward; and for this purpoſe nothing anſwers ſo well as taking them frequently out. The huntſman ſhould go along with them, get frequently off his horſe, and encourage them to come to him:—too much reſtraint will frequently incline the hounds to be riotous. Our author frequently walks out his hounds among ſheep, hares, and deer. Sometimes he turns down a cat before them, which they kill; and, when the time of hunting approaches, he turns out young foxes or badgers; taking out ſome of the moſt ſteady of his old hounds to lead on the young ones. Small covers and furze-brakes are drawn with them to uſe them to a halloo, and to teach them obedience. If they find improper game and hunt it, they are ſtopped and brought back; and, as long as they will ſtop at a rate, they are not chaſtiſed. At ſuch times as they are taken out to air, the huntſman leads them into the country in which they are deſigned to hunt; by which means they acquire a knowledge of the country, and cannot miſs their way home at any time afterwards. When they begin to hunt, they are firſt brought into a large cover of his own, which has many ridings cut in it; and where young foxes are turned out every year on purpoſe for them. After they have been hunted for ſome days in this manner, they are ſent to more diſtant covers, and more old hounds added to them. There they continue to hunt till they are taken into the pack, which is ſeldom later than the beginning of *September*; for by that time they will have learned what is required of them, and ſeldom give much trouble afterwards. In *September* he begins to hunt in earneſt: and after the old hounds have killed a few foxes, the young ones are put into the pack, two or three couple at a time, till all have hunted. They are then divided: and, as he ſeldom has occaſion to take in more than nine or ten couple, one half are taken out one day, and the other the next, till they are ſteady.

To render fox-hunting complete, no young hounds ſhould be taken into the pack the firſt ſeaſon;—a requiſite too expenſive for moſt ſportſmen. The pack ſhould conſiſt of about forty couple of hounds, that have hunted one, two, three, four, or five ſeaſons. The young pack ſhould conſiſt of about twenty couple of young hounds, and an equal number of old ones. They ſhould have a ſeparate eſtabliſhment, and the two kennels ſhould not lie too near one another. When the ſeaſon is over, the beſt of the young hounds ſhould be taken into the pack, and the draught of old ones exchanged for them. Many muſt be bred to enable a ſportſman to take in twenty couple of young hounds every ſeaſon. It will always be eaſy to keep up the number of old hounds; for when your own draft is not ſufficient, drafts from other packs may be obtained, and at a ſmall expence. When young hounds are hunted together for the firſt ſeaſon, and have not a ſufficient number of old ones along with them, it does more harm than good.

Of the Kennel.

Mr. BECKFORD, in his *Eſſay on Hunting*, is very particular in deſcribing a kennel for hounds; ſince it is indiſpenſably neceſſary for keeping thoſe animals in proper health and order. "It is true (ſays he), hounds may be kept in barns and ſtables; but thoſe who keep them in ſuch places can beſt inform you whether their hounds are capable of anſwering the purpoſes for which they are deſigned. The ſenſe of ſmelling is ſo exquiſite in a hound, that I cannot but ſuppoſe that every ſtench is hurtful to it. Cleanlineſs is not only abſolutely neceſſary to the noſe of the hound, but alſo to the preſervation of his health. Dogs are naturally cleanly; and ſeldom, if they can help it, dung where they lie. Air and freſh ſtraw are neceſſary to keep them healthy. They are ſubject to the mange; a diſorder to which poverty and naſtineſs will very much contribute. The kennel ſhould be ſituated on an eminence; its front ought to be to the eaſt, and the courts round it ought to be wide and airy to admit the ſunbeams at any time of the day. It is proper that it ſhould be neat without and clean within; and it is proper to be near the maſter's houſe, for obvious reaſons. It ought to be made large enough at firſt, as any addition to it afterwards may ſpoil it in appearance at leaſt." Two kennels, however, in our author's opinion, are abſolutely neceſſary to the well-being of hounds: "When there is but one (ſays he), it is ſeldom ſweet; and, when cleaned out, the hounds, particularly in winter, ſuffer both while it is cleaning and afterwards as long as it remains wet."

When the feeder firſt comes to the kennel in a morning, he ſhould let out the hounds into the outer-court, and, in bad weather, ſhould open the door of the hunting-kennel (that in which the hounds deſigned to hunt the next day are kept), leſt want of reſt ſhould incline them to go into it. The lodging-room ſhould then be cleaned out, the doors and windows of it opened, the litter ſhaken up, and the kennel made ſweet and clean before the hounds return to it again—The floor of each lodging-room ſhould be ſloped on both ſides to run to the centre, with a gutter left to carry off the water, that when they are waſhed they may be ſoon dry. If water ſhould remain through any fault in the floor, it muſt be carefully mopped up; for damps are always very prejudicial.

The kennel ought to have three doors; two in the front and one in the back; the laſt to have a lattice-window in it with a wooden ſhutter, which is conſtantly to be kept cloſed when the hounds are in, except in ſummer, when it ſhould be open all day.

At the back of Mr. BECKFORD's kennel is a houſe thatched and furzed up on the ſides, big enough to contain at leaſt a load of ſtraw. Here ſhould be a pit

ready

ready to receive the dung, and a gallows for the flesh. The gallows should have a thatched roof, and a circular board at the posts to prevent vermin from climbing up. He advises to inclose a piece of ground adjoining to the kennel for such dog-horses as may be brought alive; it being sometimes dangerous to turn them out where other horses go, on account of the disorders with which they may be infected. In some kennels a stove is made use of; but where the feeder is a good one, Mr. BECKFORD thinks that a mop, properly used, will render the stove unnecessary. "I have a little hayrick (says he) in the grass-yard, which I think is of use to keep the hounds clean and fine in their coats. You will frequently find them rubbing themselves against it. The shade of it is also useful to them in summer. If ticks at any time be troublesome in your kennel, let the walls of it be well washed; if that should not destroy them, the walls must then be white-washed."

Besides the directions already given concerning the situation of the kennel, our author recommends it to have a stream of water in its neighbourhood, or even running through it if possible. There should also be moveable stages on wheels for the hounds to lie on. The soil ought, at all events, to be dry.

Instructions for the Huntsman.

Having already given sufficient instructions to the huntsman for hunting the fox, under that article, we shall now give some hints to the huntsman who has the management of a pack of harriers, and who wishes to be expert in hunting the hare. For this purpose he must never forget that every hare has her particular play; and that play is occasioned or changed according to the variation of wind and weather, the weight of the air, the nature of the ground, and the degrees of eagerness with which she is pursued. Nor is he to be unmindful of the numerous accidents she may meet with in her way, to turn her out of her course, to cover her flight, to quicken her speed, or to furnish her with an opportunity of new devices. It is not enough to have a general knowledge of these things before the game is started, but in the heat of action, when most tempted to be in raptures with the sound of the horns, the melody of the cry, and the expectation of success, every step we make we must calmly observe the alteration of soil, the position of the wind, the time of the year, and no less take notice with what speed she is driven, how far she is likely to keep on forward, or to turn short behind; whether she has not been met by passengers, frightened by curs, intercepted by sheep; whether an approaching storm, a rising wind, a sudden blast of the sun, the going off of the frost, the repetition of soiled ground, the decay of her own strength, or any other probable turn of affairs, has not abated or altered the scent.

There are other things still no less necessary to be remembered than the former; as the particular quality and character of each dog; whether the present leaders are not apt to over-run it; which are most inclined to stand upon the double; which are to be depended on in the highway, on the ploughed ground, or a bare turf, in an uncertain scent, in the crossing of fresh game, through a flock of sheep, upon the soil, or stole-back. The size also and the strength of the hare will make a difference; nor must the hounds themselves be followed so closely, or so loudly cherished, when fresh and vigorous, as after they have run off their speed and mettle, and begin to be tired.

It is necessary for a young huntsman, when the scent lies well, always to keep himself pretty far behind. At such a time, especially if it be against the wind, it is impossible for the poor hare to hold it forward; nor has she any trick or refuge for her life, but to stop short by the way, and, when all are past, to steal immediately back, which is often the occasion of an irrevocable fault, in the midst of the warmest sport and expectations, and is the best trick the poor hare has for her life in scenting weather: whereas, if the huntsman were not too forward, he would have the advantage of seeing her steal off, and turning her aside, or more probably, the pleasure of the hounds returning and thrusting her up in view.

It is very common for the fleetest hound to be the best favourite, though it would be much better if he was hanged, or exchanged. Be a dog in his own nature ever so good, yet he is not good in that pack that is too slow for him. There is at most times work enough for every one of the train, and every one ought to bear his part; but this is impossible for the heavy ones to do, if they are out of breath by the unproportionable speed of a light-heeled leader. For it is not enough that they are able to keep up, which a true hound will labour hard for, but they must be able to do it with ease, with retention of breath and spirits, and with their tongues at command. It must never be expected that the indentures of the hare can be well covered, or her doubles struck off, (nor is the sport worth a farthing,) if the harriers run yelping in a long string, like deer or fox hounds.

Another thing necessary is, to hang up every liar and chanter, not sparing even those that are silly and trifling, without noise or sagacity. It is common enough in numerous kennels to keep some for their music or beauty; but this is perfectly wrong. It is a certain maxim that every dog which does no good does a great deal of hurt; they serve only to foil the ground, and confound the scent; to scamper before and interrupt their betters in the most difficult points. And we may venture to affirm, by long experience, that four or five couple, all good and trusty hounds, will do more execution than thirty or forty, where a third of them are eager and headstrong, and, like coxcombs among men, noisy in doing nothing.

Above all, abhor joining your packs with strangers, for this is the way to spoil and debauch the staunchest hounds, to turn the best mettled into mad-headed gallopers, liars, and chatterers, and to put them on nothing but out-running their rivals, and over-running the scent. The emulation of leading (in hounds and their masters) has been the utmost ruin of many a good day's sport. Nor are strange huntsmen of much better consequence than strange companions; for, as the skill and excellence of these animals consist in use and habit,

they

ſhey ſhould always be accuſtomed to the ſame voice, the ſame notes or hallooings, and the ſame turns of chiding, cheriſhing, preſſing, or recalling; nor ſhould the country fellows be allowed, in their tranſports, to extend their throats.

Nor is it good to encourage change of game, becauſe mere 'ſquires would be at a great loſs to kill ſome of their time, had they nothing to kill, when hares are out of ſeaſon. However, I am well ſatisfied, that the beſt harriers are thoſe that know no other. Nor is it adviſeable to let them change for a freſh hare, as long as they can poſſibly follow the old one; nor to take off their noſes from the ſcent they are upon, for the cutting ſhorter or gaining of ground. This laſt is the common trick with pot-hunters, but, as it is unfair and barbarous to the hare, ſo you will ſeldom find it of advantage to the hounds.

Hunting Terms.

The gentlemen and maſters of the ſport have invented a ſet of terms which may be called the *Hunting-language*. The principal are thoſe which follow:

1. For beaſts as they are in company.—They ſay, a *herd* of harts, and all manner of deer. A *bey* of roes. A *ſounder* of ſwine. A *rout* of wolves. A *richeſs* of martens. A *brace* or *leaſh* of bucks, foxes, or hares. A *couple* of rabbits or coneys.

2. For their lodging.—A hart is ſaid to *harbour*. A buck *lodges*. A roe *beds*. A hare *ſeats* or *forms*. A coney *ſits*. A fox *kennels*. A marten *trees*. An otter *watches*. A badger *earths*. A boar *couches*.—Hence, to expreſs their diſlodging, they ſay, *Unharbour* the hart. *Rouſe* the buck. *Start* the hare. *Bolt* the coney. *Unkennel* the fox. *Untree* the marten. *Vent* the otter. *Dig* the badger. *Rear* the boar.

3. For their noiſe at rutting-time.—A hart *belleth*. A buck *grouns* or *troats*. A roe *bellows*. A hare *beats* or *taps*. An otter *whines*. A boar *freams*. A fox *barks*. A badger *ſhrieks*. A wolf *howls*. A goat *rattles*.

4. For their copulation.—A hart or buck goes to *rut*. A roe goes to *tourn*. A boar goes to *brim*. A hare or coney goes to *buck*. A fox goes to *clickitting*. A wolf goes to *match* or *make*. An otter *hunteth* for his kind.

5. For the footing and treading.—Of a hart, we ſay the *ſlot*. Of a buck, and all fallow-deer, the *view*. Of all deer, if on the graſs and ſcarce viſible, the *foiling*. Of a fox, the *print*; and of other the like vermin, the *footing*. Of an otter, the *marks*. Of a boar, the *track*. The hare, when in open field, is ſaid to *ſore*; when ſhe winds about to deceive the hounds, ſhe *doubles*; when ſhe beats on the hard highway, and her footing comes to be perceived, ſhe *pricketh*: in ſnow it is called the *trace* of the hare.

6. The tail of a hart, buck, or other deer, is called the *ſingle*. That of a boar, the *wreath*. Of a fox, the *bruſh* or *drag*; and the tip at the end, the *chape*. Of a wolf, the *ſtern*. Of a hare and coney, the *ſcut*.

7. The ordure or excrement of a hart and all deer, is called *fewmets* or *fewmiſhing*. Of a hare, *crotiles* or *crotiſing*. Of a boar, *leſſes*. Of a fox, the *billitting*; and of other the like vermin, the *fuants*. Of an otter, the *ſpraints*.

8. As to the attire of deer, or parts thereof, thoſe of a ſtag, if perfect, are the *bur*, the *pearls*, the little *knobs* on it, the *beam*, the *gutters*, the *antler*, the *ſur-antler*, *royal*, *ſur-royal*, and all at top the *croches*. Of the buck, the *bur*, *beam*, *brow-antler*, *black-antler*, *advancer*, *palm*, and *ſpellers*. If the croches grow in the form of a man's hand, it is called a *palmed-head*. Heads bearing not above three or four, and the croches placed aloft, all of one height, are called *crowned heads*. Heads having double croches are called *forked-heads*, becauſe the croches are planted on the top of the beam like forks.

9. They ſay, a *litter* of cubs, a *neſt* of rabbits, a ſquirrel's *dray*.

10. The terms uſed in reſpect of the dogs, *&c.* are as follow.—Of grey-hounds, two to make a *brace*; of hounds a *couple*. Of grey-hounds, three make a *leaſh*; of hounds a *couple* and *half*.—They ſay, *let ſlip* a grey-hound; and, *caſt off* a hound. The ſtring, wherein a grey-hound is led, is called a *leaſh*; and that of a hound, a *lyome*. The grey-hound has his *collar*, and the hound his *couples*. We ſay a *kennel* of hounds, and a *pack* of beagles.

In the kennels or packs they generally rank them under the heads of *enterers*, *drivers*, *flyers*, *tyers*, &c.

When the hounds, being caſt off, and finding the ſcent of ſome game, begin to open and cry, they are ſaid to *challenge*. When they are too buſy ere the ſcent be good, they are ſaid to *babble*. When too buſy, where the ſcent is good, to *bowl*. When they run it endwiſe orderly, holding in together merrily, and making it good, they are ſaid to be in *full cry*. When they run along without opening at all, it is called *running mute*.

When ſpaniels open in the ſtring, or a grey-hound in the courſe, they are ſaid to *lapſe*.

When beagles bark and cry at their prey, they are ſaid to *yearn*.

When the dogs hit the ſcent the contrary way, they are ſaid to *draw amiſs*.

When they take freſh ſcent, and quit the former chaſe for a new one, it is called *hunting change*.

When they *hunt* the game by the heel or track, they are ſaid to *hunt counter*.

When the chaſe goes off, and returns again, traverſing the ſame ground, it is called *hunting the foil*.

When the dogs run at a whole herd of deer, inſtead of a ſingle one, it is called *running riot*.

Dogs ſet in readineſs where the game is expected to come by, and caſt off after the other hounds are paſſed, are called a *relay*. If they be caſt off ere the other dogs be come up, it is called *vauntlay*.

When, finding where the chaſe has been, they make a proffer to enter, but return, it is called a *blemiſh*.

A leſſon on the horn to encourage the hounds, is named a *call*, or a *recheat*. That blown at the death of a deer, is called the *mort*. The part belonging to the dogs of any chaſe they have killed, is the *reward*. They ſay, *take off* a deer's ſkin; *ſtrip* or *caſe* a hare, fox, and all ſorts of vermin; which is done by beginning at the ſnout, and turning the ſkin over the ears down to the tail.

To HUNT. The purſuing of birds or four-footed beaſts, of which there are ſeveral ſorts, which differ according as the animals are which you hunt, and the places where they are; four-footed boaſts are hunted in the fields, woods, and thickets; they kill them with guns; and others ſhoot birds in the air, take them with nets, or birds of prey; make uſe of greyhounds for deers, does, roebucks, and even foxes, hares, and conies, *&c.*

Hunting indeed is a noble, manly recreation, not only commendable for princes and great men, but gentlemen, and others too, there being nothing that recreates the mind more, ſtrengthens the limbs, whets the ſtomach, and cheers up the ſpirits; ſo that it has merited the eſteem of all ages and nations, how barbarous ſoever they might have been.

Hunting is deſcribed under the heads of animals which are hunted, whether with dogs, taken with nets, or by birds of prey; which the reader is referred to.

All ſorts of weathers are not proper for hunting; high winds and rain are obſtacles to this diverſion.

In the ſpring time, you muſt take it in the night with nets; in the ſummer it is the diverſion of the morning; but in the winter, it ſhould not be followed but from nine in the morning till two in the afternoon. The general rule is, that you place yourſelf under the wind where you ſeek to wait for game; and the way to know it is, to take a piece of paper, and obſerve which way the wind blows it. *For the terms uſed by huntſmen, ſee the article* TERMS.

To HUNT CHANGE, is when the hounds or beagles take freſh ſcent, and follow another chaſe, till they ſtick and hit it again.

To HUNT COUNTER, ſignifies that the hounds hunt it by the heels.

HUNTING THE FOIL, is a term or phraſe uſed of the chaſes going off, and coming on again, traverſing the ſame ground to deceive the hounds or beagles.

HUNTING-HORSE. It ſhould be obſerved, that not every good and fleet horſe always is a good hunter: for he may have ſtrength and vigour for a long journey, and yet not be able to bear the ſhocks and ſtrainings of a chaſe; another may be ſwift enough to win a plate on a ſmooth turf, which yet will be crippled or heart-broken by a hare in *February*. The right hunter ought to have ſtrength without weight, courage without fire, ſpeed without labour, a free breath, a ſtrong walk, a nimble, light, but a large gallop, and a ſweet trot, to give change and eaſe to the more ſpeedy muſcles. The marks moſt likely to diſcover a horſe of theſe properties are, a vigorous, ſanguine, and healthy colour, a head and neck as light as poſſible, whether handſome or not, a quick moving eye and ear, clean wide jaws and noſtrils, large thin ſhoulders, and high withers, deep cheſt, and ſhort back, large ribs, and wide pin bones, tail high and ſtiff, gaſkins well ſpread, and buttocks lean and hard; above all, let his joints be ſtrong and firm, and his legs and paſterns ſhort; for I believe there was never yet a long limbering-legged horſe that was able to gallop down ſteep hills, and take bold leaps with a weight upon his back, without ſinking or foundering.

To order the hunting-horſe while he is at reſt, let him have all the quietneſs that may be; let him have much meat, much litter, much dreſſing, and water cloſe by him; let him ſleep as long as he pleaſes; keep him to dung rather ſoft than hard, and look that it be well coloured and bright, for darkneſs ſhews greaſe; redneſs, inward heat; and after his uſual ſcourings let him have exerciſe, and maſhes of ſweet malt, or bread, or clean beans; or beans and wheat mixed together, are his beſt food, and beans and oats the moſt ordinary.

But Sir ROBERT CHARNOCK's way of hunting in buck ſeaſon, was, never to take his horſe up into the ſtable during the ſeaſon, but he hunted him upon graſs, only allowing him as many oats as he would well eat; and this he approved of as a very good way, for if there be any molten greaſe within him, which violent hunting may raiſe, this going to graſs will purge it out: it is affirmed, the ſame gentleman has rid his horſe three days in a week during the ſeaſon, and never found any inconveniency, but rather good from it, ſo that care be taken to turn the horſe out very cool.

You may furniſh yourſelf with a horſe for hunting at ſome of our fairs, which ſhould have, as near as can be, the following ſhapes:

A head thin, large, and long; a chaul thin; and open ears, ſmall, and pricked; or, if they be ſomewhat long, provided they ſtand upright, like thoſe of a fox, it is uſually a ſign of mettle and toughneſs.

His forehead long and broad, not flat, and, as it is uſually termed, hare-faced, riſing in the midſt like that of a hare, the feather being placed above the top of his eye; the contrary being thought to betoken blindneſs.

His eyes full, large, and bright; his noſtrils wide, and red within, for an open noſtril is a ſign of good wind.

His mouth large, deep in the wikes, and hairy; his throppple, weaſand, or wind-pipe big, looſe, and ſtraight, when he is reined in with the bridle; for if, when he bridles, it bends like a bow, (which is called cock-throppled) it very much hinders the free paſſage of his wind.

His head muſt be ſo ſet on to his neck, that a ſpace may be felt between his neck and his chaul; for to be ball-necked is uncomely to the ſight, and alſo prejudicial to the horſe's wind.

His creſt ſhould be firm, thin, and well-riſen, his neck long and ſtraight, yet not looſe and pliant, which the northern men term withy-cragged.

His breaſt ſtrong and broad, his cheſt deep, his chine ſhort, his body large and cloſe ſhut up to the huckle bone.

His ribs round like a barrel, his belly being hid within them.

His fillets large, his buttocks rather oval than broad, being well let down to the gaſcoins; his cambrels upright, and not bending, which ſome call ſickle-houghed, though ſome look upon this to be a ſign of toughneſs and ſpeed.

His legs clean, flat, and ſtraight; his joints ſhort, well knit, and upright, eſpecially betwixt the paſterns and

and the hoof, having but little hair on his fetlocks; his hoofs black, ſtrong and hollow, and rather long and narrow, than big and flat.

Laſtly, his mane and tail ſhould be long, and thin rather than thick, which is counted by ſome a mark of dulneſs.

As to marks or colours, though they do not abſolutely give teſtimony of a horſe's goodneſs, yet they, as well as his ſhape, intimate in ſome part, his diſpoſition and qualities: the hair itſelf oftentimes receives the variation of its colour from the different temperature of the ſubject out of which it is produced.

And ſome do not ſcruple to affirm, that wherever you meet with a horſe that has no white about him, eſpecially in his forehead, though he be otherwiſe of the beſt reputed colours, as bay, black, or ſorrel, he is of a dogged and ſullen diſpoſition, eſpecially if he have a ſmall pink eye, and a narrow face, with a noſe bending like a hawk's bill.

The Age, &c. of a Hunter.

Having procured a horſe ſuitable to the former deſcriptions, or your own ſatisfaction at leaſt, and which is ſuppoſed to be already grounded in the fundamentals of this art, being taught ſuch obedience, as that he will readily anſwer to the horſeman's helps and corrections both of the bridle and hand, the voice, the calf of the leg, and the ſpurs; that he knows how to make his way forward, and hath gained a true temper of mouth, and a right placing of his head, and that he hath learned to ſtop, and turn readily; for unleſs he has been perfectly taught theſe things, he can never proceed effectually.

The horſe, being thus prepared, ſhould be five years old, and well wayed before you begin to hunt him; for although it is cuſtomary with ſome to put him to hunt at four years old, yet at that age his joints not being well knit, nor he attained to his beſt ſtrength and courage, he is unable to perform any work of ſpeed and toughneſs, and will be in great danger of ſtrains, and other maladies, and alſo a daunting of his ſpirit, and abating his natural courage.

Your horſe being full five, you may, if you pleaſe, put him to graſs, from the middle of *May* till *Bartholomew-tide*, for then the ſeaſon will be ſo hot, it will not be convenient to work him.

Bartholomew-tide being now come, and the pride and ſtrength of the graſs nipped by the ſevere froſts and cold dews, ſo that the nouriſhment of it turns to raw crudities, and the coldneſs of the night abates as much of his fleſh and luſt as he gets in a day, take him from graſs while his coat lies ſmooth and ſleek. *See* STABLE.

Having brought him home, let your groom ſet him up that night in ſome ſecure and ſpacious houſe, where he may evacuate his body, and ſo be brought to warmer keeping by degrees, and the next day ſtable him.

It is indeed held as a general rule among the generality of grooms, not to clothe or dreſs their horſes till two or three days after they have ſtabled them (though there is little reaſon for it but cuſtom;) yet this cuſtom conducing little to either the advantage or prejudice of the horſe, I ſhall leave every one to their own fancies.

But as to the cuſtom of giving the horſe wheat-ſtraw, to take up his belly (which is alſo generally uſed by grooms at the firſt taking up and houſing a horſe) ſome perſons very much diſapprove of, for they ſay, that the nature of a horſe being hot and dry, if he be fed with ſtraw, which is ſo likewiſe, it would ſtraighten his guts, and cauſe an inflammation of his liver, and by that means diſtemper his blood; and beſides, it would make his body ſo coſtive, that it would cauſe a retention of nature, and make him dung with great pain and difficulty; whereas full feeding would expel the excrements, according to the true intention and inclination of nature.

Therefore let moderate airing, warm cloathing, good old hay, and old corn, ſupply the place of wheat-ſtraw. *See* SHOEING.

The firſt Fortnight's Diet for a Hunting Horſe; or, the Ordering of a Hunter for the Firſt Fortnight.

Your horſe being ſuppoſed to evacuate all his graſs, and his ſhoes ſo well ſettled to his feet, that he is fit to be ridden abroad without danger: I ſhall now, in a more particular manner, direct an inexperienced groom how he ought to proceed to order his horſe according to art.

Firſt, he ought to viſit his horſe early in the morning, to wit, by five o'clock in ſummer, and ſix in winter; and having put up his litter under his ſtall, and made clean his ſtable, to feel his ribs, his chaul, and his flank, they being the principal ſigns by which he muſt learn to judge of the good or ill ſtate of a horſe's body.

He ought to lay his hands on his ſhort ribs near the flank, and if his fat feels to be exceeding ſoft and tender, and to yield as it were under his hand, then he may be confident it is unſound, and that the leaſt violent labour or travel will diſſolve it; which being diſſolved before it be hardened by good diet, if it be not then removed by ſcowering, the fat or greaſe belonging to the outward parts of the body will fall down into his heels, and ſo cauſe goutineſs and ſwelling.

After, by feeling on his ribs, he has found his fat ſoft and unſound, then let him feel his chaul; and if he finds any fleſhy ſubſtance, or great round kernels or knots, he may be aſſured that as his outward fat has been unſound, ſo inwardly he is full of glut, and purſive, by means of groſs humours cleaving to the hollow places of his lungs, &c.

This fat is to be enſeamed and hardened by moderate exerciſe, warm cloathing, and gentle phyſic, to cleanſe away his inward glut.

The ſame obſervations muſt be taken from the flank, which will always be found to correſpond with his ribs and chaul, for till it is drawn it will feel thick to your gripe, but when he is enſeamed you will perceive nothing but two thick ſkins: and by theſe three obſervations of the ribs, flank, and chaps, you may at any time

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paſs an indifferent judgment of the horſe's good or bad condition.

Having made theſe remarks on your horſe's ſtate and condition of body, then ſift a handful or two (but not more) of good old oats, and give them to him to preſerve his ſtomach from cold humours which might oppreſs it by drinking faſting, and likewiſe to make him drink the better.

When he hath eaten them, pull off his collar, and rub his head, face, ears, and nape of the neck, with a clean rubbing-cloth made of hemp, for it is ſovereign for the head, and diſſolves all groſs and filthy humours.

Then take a ſnaffle, and waſh it in clean water, and put it on his head, drawing the rein through the head-ſtall to prevent his ſlipping it over his head; and ſo tie him up to the rack, and dreſs him thus:

Firſt, take a curry-comb ſuitable to your horſe's ſkin in your right-hand; that is, if the coat of your horſe be ſhort and ſmooth, then muſt the curry-comb be blunt; but if it be long and rough, then the teeth muſt be long and ſharp; ſtanding with your face oppoſite to the horſe's, hold the left cheek of the head-ſtall in your left-hand, and curry him with a good hand from the root of his ears, all along his neck to his ſhoulders; then go over all his body with a more moderate hand; then curry his buttocks down to the hinder cambrel with a hard hand again; then change your hand, and laying your right arm over his back, join your right ſide to his left, and ſo curry him gently from the top of his withers to the lower part of his ſhoulder, every now and then fetching your ſtroke over the left ſide of his breaſt, and ſo curry him down to the knee, but no farther.

Then curry him all under his belly, near his fore-bowels, and in a word, all over, very well, his legs under the knees and cambrels only excepted, and as you dreſs the left ſide, ſo muſt you the right alſo.

In doing this, take notice whether your horſe keeps a riggling up and down, biting the rack-ſtaffs, and now and then offering to ſnap at you, or lifting up his leg to ſtrike at you, when you are currying him: if he does, it is an apparent ſign that the roughneſs of the comb diſpleaſes him, and therefore the teeth of it are to be filed more blunt; but if you perceive he plays theſe or ſuch like tricks through wantonneſs, and the pleaſure he takes in the friction, then you ſhould every now and then correct him with your whip gently for his waggiſhneſs.

This currying is only to raiſe the duſt, therefore, after the horſe has been thus curried, take either a horſe-tail nailed to an handle, or a clean duſting-cloth of cotton, and with it ſtrike off the looſe duſt that the curry-comb has raiſed.

Then dreſs him all over with the *French* bruſh, both head, body, and legs, to the very fetlocks, obſerving always to cleanſe the bruſh from the filth it gathers from the bottom of the hair, by rubbing it on the curry-comb; then duſt the horſe again the ſecond time.

Then having wetted your hand in water, rub his body all over, and, as near as you can, leave no looſe hairs behind, and with your hands wet, pick, and cleanſe his eyes, ears, and noſtrils, ſheath, cods and tuel, and ſo rub him till he is as dry as at firſt.

Then take an hair-patch, and rub his body all over, but eſpecially his fore-bowels under his belly, his flank, and between his hinder thighs; and in the laſt place, wipe him over with a fine white linen rubber.

When you have thus dreſſed him, take a large ſaddle cloth (made on purpoſe) that may reach down to the ſpurring-place, and lap it about his body; then clap on his ſaddle, and throw a cloth over him, that he may not catch cold.

Then twiſt two ropes of ſtraw very hard together, and with them rub and chafe his legs from the knees and cambrels downwards to the ground, picking his fetlock joints, with your hands, from duſt, filth, and ſcabs: then take another hair-patch, kept on purpoſe for his legs (for you muſt have two) and with it rub and dreſs his legs alſo.

And while you are dreſſing your horſe, let him not ſtand naked, ſo that his body be expoſed to the penetration of the air; but when he is ſtripped, do your buſineſs roundly, without any intermiſſion, till you have ſaddled him and thrown his cloth over him.

When you have done this, pick his feet clean with an iron picker, comb down his mane and tail with a wet mane-comb, then ſpirt ſome beer in his mouth, and ſo draw him out of the ſtable.

Then mount him, rake or walk him either to ſome running river or freſh ſpring, a mile or two diſtant from the ſtable, and there let him drink about half his draught at firſt, to prevent raw crudities ariſing in his ſtomach.

After he has drank, bring him calmly out of the water, and ride him gently for a while; for nothing is more unbecoming for a horſeman than to put a horſe upon a ſwift gallop as ſoon as he comes out of the water, for theſe three reaſons:

1. He does not only hazard the breaking of his wind, but aſſuredly hazards the incording or burſting of him.

2. It begets in him an ill habit of running away as ſoon as he has done drinking.

3. The foreſight he has of ſuch violent exerciſe makes him oftentimes refuſe to quench his thirſt, therefore walk him a little way, put him into a gentle gallop for five or ſix ſcore paces, and give him wind; after he has been raked a pretty while, ſhew him the water again, let him drink as much as he will, and then gallop him again: repeat this till he will drink no more; but be ſure to obſerve always, that you gallop him not ſo much as to chafe or ſweat him.

Here take notice, that in his galloping after water (after the firſt week's enſeaming) if ſometimes you give a watering courſe ſharply of twelve, or twenty ſcore paces (according as you find your horſe) it will quench his ſpirit, and cauſe him to gallop more pleaſantly, and teach him to manage his limbs more nimbly, and to ſtretch forth his body largely.

When your horſe has done drinking, then take him

to the top of an hill (if there be one near the watering-place) for there in a morning, the air is pureſt; or elſe to ſome ſuch place, where he may gain the moſt advantage both by ſun and air, and there air him a foot-pace for an hour, or as long as you in your judgment ſhall think fit for the ſtate of his body, and then ride him home.

During the time of your horſe's airing, you may eaſily perceive ſeveral tokens of your horſe's ſatisfaction, and the pleaſure that he takes in this exerciſe.

For he will gape, yawn, and as it were ſhrug his body.

If he offers to ſtand ſtill to dung or ſtale, which his airing will provoke, be ſure give him leave; as alſo to ſtare about, neigh, or liſten after any noiſe.

Theſe airings are advantageous to the horſe on ſeveral accounts.

1. It purifies the blood (if the air be clear and pure); it purges the body of many groſs and ſuffocating humours, and ſo hardens and enſeams the horſe's fat, that it is not near ſo liable to be diſſolved by ordinary exerciſe.

2. It teaches him how to let his wind rake, and equally keep time with the other actions and motions of his body.

3. It is of great advantage, both to hunters and gallopers, which are apt to loſe their ſtomachs through exceſs or want of exerciſe, for the ſharpneſs of the air will drive the horſe's natural heat from the outward parts to the inward, which heat by furthering concoction creates appetite, and provokes the ſtomach.

4. It increaſes luſt and courage in the horſe, provided he be not aired too early.

When you are returned from airing, and are diſmounted, lead the horſe on the ſtraw, which ſhould always lie before the ſtable-door, and there by whiſtling and ſtirring up the litter under his belly, you will provoke him to ſtale, which he will be brought to do with a little practice, and it will be advantageous to the health of the horſe, and a means of keeping the ſtable the cleaner: lead him into his ſtall (it having firſt been well littered); tie up his head to the empty rack, take off the ſaddle, rub his body and legs all over with the fleſh-bruſh, then with the hair-patch, and laſt of all with the woollen-cloth.

Then clothe him with a linen-cloth next to his body, and over that a canvas-cloth, and both made juſt fit to cover his breaſt, and to come pretty low down to his legs, which is the *Turkiſh* way of clothing, who (as the Duke of NEWCASTLE ſays) are the moſt curious people in the world in keeping their horſes.

Put over the before-mentioned a body-cloth of ſix or eight ſtraps, which is better than a ſurcingle and a pad ſtuft with wiſps.

Becauſe this keeps his belly in ſhape, and is not ſo ſubject to hurt him.

Now theſe cloths will be ſufficient for him at his firſt ſtabling, becauſe being inured to the cold, he will not be ſo apt to take cold, the weather being indifferently warm, but when ſharp weather comes on, and you find his hair riſe about thoſe parts that are unclothed, as neck, gaſcoins, &c. then add another cloth, which ought to be of woollen; and for any horſe bred under our climate, and kept only for ordinary hunting, this clothing will be ſufficient.

Having already given directions as to the clothing the horſe, I ſhall only add this one general rule; that a rough coat is a token of want of cloaths, and a ſmooth coat of cloathing ſufficient; therefore if notwithſtanding what cloaths you have given him, his coat ſtill ſtares, you muſt add more cloaths till it lie.

But when he has been in keeping ſome time, if you perceive him apt to ſweat in the night, it is a ſign he is over-fed, and wants exerciſe; but if he ſweats at his firſt coming from graſs, then there is reaſon to add rather than diminiſh the cloaths before directed for him at his firſt houſing; for it proceeds from the foul humours that oppreſs nature, and when they are evacuated by exerciſe, nature will ceaſe working, and he will continue in a temperate ſtate of body all the year after.

When you have cloathed him up, pick his feet clean with an iron picker, and waſh his hoofs clean with a ſponge dipped in clean water, and dry them with ſtraw or a linen cloth, then leave him on his ſnaffle for an hour or more, which will aſſiſt his appetite.

Viſit him again, duſt a handful of hay, and let the horſe teaze it out of your hand, till he hath eaten it: then pull off his bridle, and rub his head and neck clean with your hempen-cloth; pull his ears, and ſtop his noſtrils, to cauſe him to ſnort, which will bring away the moiſt humours which oppreſs his brain, and then put on his collar, and give him a quartern of oats clean dreſſed in a ſieve, having firſt cleaned his locker or manger with a wiſp of ſtraw and a cloth.

While he is eating his corn, ſweep out your ſtable, and ſee that all things are neat about him; then turn up his cloaths and rub his fillets, buttocks, and gaſcoins, over with the hair-patch, and after with a woollen cloth; then ſpread a clean flannel fillet cloth over his fillets and buttocks (which will make his coat lie ſmooth) and turn down his houſing cloths upon it; then anoint his hoofs round from the coronet to the toe with this ointment:

Take four ounces of Venice-turpentine, three ounces of bees-wax, two ounces of the beſt roſin, one pound of dog's-greaſe, and half a pint of train oil; melt all theſe ingredients together, except the turpentine; then take them off the fire, and put in the turpentine, ſtirring it till it be well incorporated; then pour it into an earthen gallipot, and keep it for uſe, but do not cover it till it is cold.

After this, pick his feet with your picker, and ſtop them with cow-dung. If by this time your horſe has eaten his oats with a good ſtomach, ſift him another quartern, and ſo feed him little and little, while he eats with an appetite; but if you find he fumbles with his corn, give him no more for that time, but always giving him his full feeding, for that will keep his body in

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better ſtate and temper, and increaſe his ſtrength and vigour.

Whereas, on the contrary, to keep your horſe always ſharp ſet, is the ready way to procure a ſurfeit, if at any time he can come at his fill of provender.

But though you ſhould perceive that he gathers fleſh too faſt upon ſuch home feeding, yet be ſure not to ſtint him for it, but only increaſe his labour, and that will aſſiſt both his ſtrength and wind.

Having done all the things before directed, duſt a large quantity of hay, and throw it down to him on his litter, after you have taken it up under him; and then ſhutting up the windows and ſtable-door, leave him till one o'clock in the afternoon; then viſit him again, and rub over his head, neck, fillets, buttocks, and legs as before, with the hair-patch and woollen cloth, and leave him to the time of the evening-watering, which ſhould be about four o'clock in the ſummer, and three in the winter: when having put back his foul litter, ſwept away that and his dung, dreſs, and ſaddle him, as before, mount him, and take him to the water, and when he has drank, air him till you think it time to go home, where you are to order in all points, as to rubbing, feeding, ſtopping his feet, *&c.* as you did in the morning; and having fed him about ſix o'clock, do not fail to feed him again at nine, litter him well, give him hay enough to ſerve him all night, and leave him till the next morning.

After the directions for this one day, ſo muſt you order him for a fortnight, and by that time his fleſh will be ſo hardened, and his wind ſo improved; his mouth will be ſo quickened, and his gallop brought to ſo good a ſtroke, that he will be fit to be put to moderate hunting.

During this fortnight's keeping, you are to make ſeveral obſervations, as to the nature and diſpoſition of your horſe, the temper of his body, the courſe of his digeſtion, *&c.* and to order him accordingly.

1. Whether he be of a churliſh diſpoſition; if ſo, you muſt reclaim him by ſeverity.

If of a gentle, familiar, and loving temper, you muſt engage, and win him by kindneſs.

2. You muſt obſerve, whether he be a foul feeder, or of a nice ſtomach; if he be quick at his meat, and retain a good ſtomach, then four times a full feeding in a night and a day are ſufficient; but if he be a ſlender feeder, and ſlow at his meat, you muſt give him but a little at a time, and often, as about every two hours; for freſh meat will draw on his appetite; and you muſt always leave a little meat in his locker, for him to eat at leiſure betwixt his feeding-times; if at any time you find any left, ſweep it away and give him freſh, and expoſe that to the ſun and air, which will reduce it again to it's firſt ſweetneſs.

His ſtomach may alſo be ſharpened by change of meat, or by giving one meal of clean oats, and at another oats and ſplit beans, and when you have brought him to eat bread, you may give him another meal of bread; always obſerving to give him oftenеſt that which you find he likes beſt; or you may give him both corn and bread at the ſame time, provided you give him that laſt which he eats beſt, and is of the beſt digeſtion.

It has been obſerved of ſome horſes, that they are of ſo hot a conſtitution, that they cannot eat without drinking at every bit; and thoſe horſes uſually carry no belly. You muſt let a pail of water ſtand continually before ſuch horſes, or at leaſt give them water at noon, beſides what they have abroad at their ordinary times.

In the next place, you are to obſerve the nature of his digeſtion, whether he retains his food long, which is a ſign of bad digeſtion; or whether he dungs frequently, which if he does, and his dung be looſe and bright, it is a ſign of a good habit of body; but if it be ſeldom, and hard, it is a ſign of a dry conſtitution; in order to remedy which, give him once a day a handful or two of oats, well waſhed in good ſtrong ale, and this will looſen his body and keep it moiſt; and it will alſo be good for his wind.

The ſecond Fortnight's Diet for a Hunting-Horſe.

The horſe having been ordered for the firſt fortnight according to the foregoing rules, will be in a pretty good ſtate of body, for the groſs humours in him will begin to be hardened, which you may perceive by feeling his chaul, his ſhort ribs and flank; for the kernels under his chaps will not feel ſo groſs as they did at firſt, nor will his fleſh on his ſhort ribs feel ſo ſoft and looſe, nor the thin part of his flank ſo thick as at his firſt houſing, ſo that you may now without hazard venture to hunt him moderately.

The time being now come that he may be hunted, he is to be ordered on his days of reſt, in all points, as to his dreſſing, hours of feeding, watering, *&c.* as in the firſt fortnight before directed; but only ſince his labour is now encreaſed, you muſt endeavour to encreaſe his ſtrength and courage likewiſe; and this you may effect by adding to his oats a third part of clean old beans, ſpelted on a mill, and allowing him beſides the following bread:

Take two pecks of clean old beans, and one peck of wheat, and let them be ground together, and ſift the meal through a meal ſieve of an indifferent fineneſs, and knead it with warm water and good ſtore of yeaſt; then let it lie an hour, or more, to ſwell, which will make the bread the lighter, and have the eaſier and quicker digeſtion; and after it has been well kneaded, make it up into loaves of a peck a-piece, which will prevent there being too much cruſt, and likewiſe its drying too ſoon; let them be well baked, and ſtand a good while in the oven to ſoak; when they are drawn, turn the bottom upwards and let them ſtand to cool.

When the bread is a day old, chip away the cruſt, and you may give the horſe ſome, giving him ſometimes bread, ſometimes oats and ſplit beans, according as you find his ſtomach: and this feeding will bring him into as good condition as you need to deſire for ordinary hunting.

The firſt fortnight being expired, and the bread prepared, you ought then to pitch upon a day for his firſt going abroad after the dogs, and the day before you hunt he muſt always be ordered after this manner:

In the morning proceed in your uſual method as before, only obſerve that day to give him no beans, be-

cauſe they are hard of digeſtion, but give him moſt of bread, if you can draw him on to eat it, becauſe it is more nouriſhing than oats; and after, in the evening, which ought to be ſomewhat earlier than at other times, give him only a little hay out of your hand, and no more till the next day that he returns from hunting; and to prevent his eating his litter, or any thing elſe but what you give him, inſtead of a muzzle put on a caveſſon, joined to the headſtall of a bridle, lined with leather, for fear of hurting him, and tying it ſo ſtraight as to hinder his eating; and this will prevent ſickneſs in your horſe, which ſome horſes are incident to when their muzzle is put on, notwithſtanding the invention of the lettice window, ſo much uſed; but by taking this method, the horſe's noſtrils are at full liberty, and he will not grow ſick.

But as to his corn, give him his meals both after his watering and at nine o'clock, and at that time be ſure to litter him well, that he may take his reſt the better that night, and leave him till morning.

The next morning viſit him early, at about four o'clock, and put a quarter of a peck of clean dreſſed oats into his locker, pouring into it a quart of good ſtrong ale, mixing the oats and ale well together; then put back his dung and foul litter, and clean the ſtable: but if he will not eat waſhed oats, give him dry, but be ſure not to put any beans to them.

When he has done eating, bridle him, and tie him up to the ring and dreſs him; having dreſſed him, ſaddle him, throwing his cloth over him, and let him ſtand till the hounds are ready to go out.

Take care not to draw the ſaddle-girths too ſtraight till you are ready to mount, leſt that ſhould cauſe him to grow ſick.

Though old horſes are generally ſo crafty, that when a groom goes to girt them up hard, they will extend their bodies ſo much by holding their wind, (on purpoſe to gain eaſe after they are girt) that it will ſeem difficult to girt them, but when they let go their wind their bodies fall again.

When the hounds are unkennelled, (which ſhould not be before ſun-riſing) go into the field along with them, and rake your horſe up and down gently till a hare is ſtarted; always remembering to let him ſmell to the dung of other horſes, if there be any, which will provoke him to empty himſelf; and ſuffer him to ſtand ſtill when he does ſo; and if there be any dead fog, ruſhes, or the like, ride upon them, and whiſtle to him, to provoke him to ſtale and empty his bladder.

The hare being ſtarted, follow the hounds as the other hunters do; but remembering it to be the firſt time of his hunting, he is not ſo well acquainted with different ſorts of grounds, as to know how to gallop ſmoothly and with eaſe on them, and for that reaſon you ought not yet to put him to above half his ſpeed, that he may learn to carry a ſtay'd body, and to manage his legs both upon fallows and green ſwarth.

Neither ſhould you gallop him often, or any long time together, for fear of diſcouraging him, and cauſing a diſlike of his exerciſe in him; and take care to croſs fields to the beſt advantage; you ſhall make in to the hounds at every default, and ſtill keep your horſe (as much as theſe directions will allow you) within the cry of the dogs, that he may be uſed to their cry; and by ſo doing, in a very ſhort time he will take ſuch delight and pleaſure in their muſic, that he will be eager to follow them.

And if it happens that the chaſe is led over any carpet-ground, or ſandy highway, on which your horſe may lay out his body ſmoothly, there you may gallop him for a quarter or half a mile, to teach him to lay out his body, to gather up his legs, to lengthen and ſhorten his ſtroke, and according to the different earths he gallops on, as it on green ſwarth, meadow, moor, heath, &c. then to ſtoop and run more on the ſhoulders; if amongſt mole-hills, or over high ridges and furrows, and then to gallop more roundly, or in leſs compaſs, or according to the vulgar phraſe, *two up and two down*, that thereby he may ſtrike his furrow clear, and avoid ſetting his fore-feet in the bottom of it, and by that means fall over; but, by the way, galloping, though he ſhould happen to ſet his feet in a furrow, yet carrying his body ſo round, and reſting on the hand in his gallop, would prevent his falling; and to this perfection, nothing but uſe, and ſuch moderate exerciſe, can bring him.

According to theſe directions you may hunt till about three o'clock in the afternoon, at which time ride him home in a foot-pace, as you came out in the morning; and be ſure that you let him walk out of the field; and as you are going home, conſider whether he has ſweat a little (for you muſt not let him ſweat much the firſt time) but if not, then gallop him gently on ſome ſkelping earth, till he ſweats at the roots of his ears, a little on his neck, and in his flank; but it muſt be done of his own voluntary motion, without the compulſion of whip or ſpur; then when he is cool as aforeſaid, have him home and ſtable him, and by no means walk him in hand to cool him, for fear of cauſing an obſtruction of the natural courſe of the humours and by that means cauſe an inflammation in his legs, which is the original cauſe of the ſcratches.

His ſtall being well littered againſt he comes home, ſet him up, tying his head to the ring with the bridle, and then rub him well with dry ſtraw all over his head, neck, fore-bowels, belly, flank, buttocks, and legs, and after that rub his body over with a dry cloth, till he has not a wet hair left about him; after you have done, take off his ſaddle, and rub the place where the ſaddle was, dry in like manner, and cloath him immediately with his ordinary cloaths, leſt he take cold: and if you ſuppoſe him very hot, throw a ſpare cloth over him, that he may not cool too faſt, which you may abate when you pleaſe, and ſo let him ſtand on his ſnaffle two hours or better, now and then ſtirring him in his ſtall with your whip, to prevent him from growing ſtiff in the legs and joints.

When that time is expired, and you think he is thorough cool, draw his bridle, rub his head, pick his feet from dirt or gravel, put on his collar, and give him a quart or three pints of ſifted oats, mixt with a handful of clean dreſſed hemp-ſeed; but give him not more

than the quantity preſcribed, for fear of taking away his ſtomach, which will be very much weakened through the heat of his body and want of water.

Then take off the ſpare cloth (if it has not been done before) for fear of keeping him hot too long, and when he has eaten his corn, throw a good quantity of hay, clean duſted, on his litter, and let him reſt two or three hours or thereabouts.

Having prepared him a good maſh made of half a peck of malt, well ground, and boiling hot water, ſo much as the malt will ſweeten and the horſe will drink, ſtir them well together, and cover it over with a cloth, till the water has extracted the ſtrength of the malt, which will be almoſt as ſweet as honey, and feel ropy like birdlime; being but little more than blood warm, give it the horſe, but not before, leſt the ſteam go up his noſtrils and offend him, and when he has drank up the water, let him, if he pleaſe, eat the malt too.

But if he refuſes to drink it, you muſt not give him any other water that night, but place this drink in ſome part of his ſtall, ſo that he may not throw it down, and let it ſtand by him all night, that he may drink it when he pleaſes.

This maſh, or as it is called, horſe caudle, will comfort his ſtomach, and keep his body in a due temperate heat after his day's hunting; it will bring away all manner of greaſe and groſs humours, which have been diſſolved by the day's labour; and the fume of the malt-grains, after he has drank the water, will diſperſe the watery humours, which might otherwiſe annoy his head, and is allowed by all ſkilled in horſes to be very advantageous on that account.

After he has eaten his maſh, ſtrip him of his cloaths, and run him over with a curry-comb, *French* bruſh, hair-patch, and woollen cloth, and cloath him up again; and cleanſe his legs as well as his body, of all dirt and filth which may annoy them, and then remove him into another ſtall (that you may not wet his litter) and bathe his legs all over from the knees, with warm beef broth, or (which is better) with a quart of warm urine, in which four ounces of ſalt-petre has been diſſolved; then rub his legs dry, ſet him again into his ſtall, and give him a good home feeding of oats, or bread, which he likes beſt, or both, and having ſhook a good quantity of litter under him, that he may reſt the better, and thrown him hay enough for all night, ſhut the ſtable door cloſe, and leave him to his reſt till the next morning.

About ſix or ſeven o'clock the next morning go to him again, but don't diſturb him, for the morning's reſt is as refreſhing to a horſe as a man; but when he riſes of his own accord, go to him, put back his dung from his litter, and obſerve what colour it is of, whether it be greaſy, and ſhine outwardly, and alſo break it with your feet, to ſee if it be ſo inwardly, for if it be greaſy and foul (which you may know by its ſhining outwardly, and by the ſpots like ſoap that will appear within) or if it appear of a dark brown colour, and harder than it was, it is a token that the hunting of the day before has done him good, by diſſolving part of the inward glut which was within him; and therefore the next time you hunt you ſhould increaſe his labour but a little.

But if you perceive no ſuch ſymptoms, but that his dung appears bright, but rather ſoft than hard, without greaſe, and in a word, that it holds the ſame pale yellow colour, that it did before he hunted, then it is a ſign that a day's hunting made no diſſolution, but that his body remains in the ſame ſtate ſtill, and therefore the next day's hunting, you may almoſt double his labour.

Having made theſe remarks on his dung, then you may proceed to order him as on his days of reſt; that is to ſay, you ſhall give him a handful or two of oats before water, then dreſs, water, air, feed, &c. as in the firſt fortnight.

As to his feeding, you muſt not forget to change his food, as has been before directed; by giving him one while bread, another oats, and a third time oats and beans, which you find he likes beſt; always remembering, that variety will ſharpen his appetite; and bread being his chief food, it being more nouriſhing and ſtrong than the others, feed him the oftener with it.

And, as has been directed in the firſt fortnight, obſerve his digeſtion, whether it be quick or ſlow; ſo likewiſe muſt you do when he begins to eat bread.

If you find him quick, and that he retains his bread but a little while, then only chip his bread lightly; but if it be ſlow, and he retains it long, then cut away all the cruſt and give it to ſome other horſe, and feed the hunting horſe only with the crumb, for that being light of digeſtion, is ſoon converted into chyle and excrements, but the cruſt being not ſo ſoon digeſtible, requires, by reaſon of its hardneſs, longer time before it is concocted.

The next day after your horſe has reſted, you may hunt him again as you did the firſt day, obſerving from the remarks you have made, to hunt him more or leſs according as you find his temper and conſtitution; and when you come home, put in practice the rules juſt now given.

And thus you may hunt him three times a week for a fortnight together, but don't fail to give him his full feeding, and no other ſcowerings but meſhes and hemp-ſeed, which is equal in its virtue with the former, and only carries off ſuperfluous humours in the dung.

The third Fortnight's Diet, &c. for a Hunting-Horſe.

By this time the horſe will be drawn ſo clean, his fleſh will be ſo enſeamed, and his wind ſo improved, that he will be able to ride a chaſe of three or four miles without blowing or ſweating; and you may find by his chaul and flank, as well as his ribs, that he is in an indifferent good ſtate of body, and therefore in this next fortnight you muſt increaſe his labour, and by that means you will be able to make a judgment what he will be able to do, and whether or no he will ever be fit for running for plates, or a match.

When your horſe is ſet over night, and fed early in the

the morning, as has been directed for the ſecond fortnight, then go into the field with him, and when he is empty (as he will be by that time you have ſtarted your game) follow the dogs at a good round rate, as at half ſpeed, and ſo continue till you have either killed or loſt your firſt hare.

This will ſo rack your horſe, and he will have ſo emptied himſelf, that he will be in a fit condition to be rid the next chaſe briſkly, which as ſoon as it is begun, you may follow the dogs at three quarters ſpeed, and as near as is fit for a good horſeman and ſkilful huntſman; but be ſure to take care not to ſtrain him.

During this day's riding, you ought to obſerve nicely your horſe's ſweat under his ſaddle and fore-bowels, and if it appears white, like froth or ſoap-ſuds, it is a ſign of inward glut and foulneſs, and that your day's exerciſe was enough for him, therefore ride him home, and order him as before directed.

But if it has happened that your exerciſe has been ſo eaſy as not to ſweat your horſe thoroughly, then you ought to make a train ſcent of four miles in length, or thereabouts, and laying on your fleeteſt dogs, ride it briſkly, and afterwards cool him in the field, and ride him home and order him as has been before directed.

A train ſcent, is the trailing of a dead cat or fox (and in caſe of neceſſity a red herring) three or four miles, according as the rider ſhall pleaſe, and then laying the dogs on the ſcent.

It will be proper to keep two or three couple of the fleeteſt hounds that can poſſibly be procured, for this purpoſe.

It is true, indeed, ſome ſkilful ſportſmen do make uſe of their harriers in this caſe, for their diverſion, but it will not be convenient to uſe them to it often, for it will be apt to induce them to lie off the line, and fling ſo wide, that they will not be worth any thing.

When you take off your horſe's bridle, give him a good quantity of rye-bread, inſtead of hemp-ſeed and oats, and for that purpoſe bake a peck loaf; for this being cold and moiſt, will be of uſe to cool his body after his labour, and prevent coſtiveneſs, to which you will find him addicted; then give him hay, and afterwards a maſh, and order him in all things as before directed.

The next morning, if you perceive by his dung that his body is diſtempered, and that he is hard bound, then take ſome crumbs of your rye-bread, and work it with as much ſweet freſh butter as will make it into a paſte, and make it up into balls about the bigneſs of a large walnut, of which give him five or ſix in a morning faſting.

After this put the ſaddle on upon the cloth, get up and gallop him gently upon ſome graſs-plat or cloſe that is near at hand, till he begin to ſweat under his ears, and then carry him into the ſtable again, rub him well, and throw a ſpare cloth over him, and a good quantity of freſh litter under him, and let him ſtand two hours on the bridle; give him a quantity of rye-bread, and ſome hay to chew upon, and give him a warm maſh, feed him with bread and corn as much as he will eat, and alſo as much hay as he will eat.

The next day water him abroad, and order him as is before directed for days of reſt.

The next day you may hunt him again, but not ſo hard as you did the time before, till the afternoon; but then ride him after the dogs briſkly, and if that does not make him ſweat thoroughly, make another train ſcent, and follow the dogs three quarters ſpeed, that he may ſweat heartily: then cool him a little, and ride him home, and as ſoon as he is come into the ſtable, give him two or three balls as big as walnuts, of the following excellent ſcouring:

Take of butter, eight ounces; lenitive electuary, four ounces; gromwel, broom, and parſley-ſeeds, of each two ounces; anniſeeds, liquorice, and cream of tartar, of each one ounce; of jalap, two ounces; reduce the ſeeds to a powder, then ſtir them into a paſte with the electuary and butter, knead it well together, put it into a pot, and keep it cloſe ſtopped for uſe.

As ſoon as the horſe has taken theſe balls rub him dry, dreſs him, cloath him warm, let him ſtand two or three hours upon the ſnaffle; afterwards give him two or three handfuls of rye-bread, and order him as you have been directed before, as to hay, provender, maſh, &c. and ſo leave him till the next moruing.

In the morning take notice of his dung, whether it ſtill retains the true colour, or be dark, or black, or red and high coloured: in the next place, whether it be looſe and thin, or hard and dry.

If it be of a pale yellow, which is the right colour, it is a ſign of health, ſtrength, and cleanneſs; if it be dark, or black, then it is a ſign there is greaſe and other ill humours ſtirred up, which are not yet evacuated: if it be red and high coloured, then it is a ſign that his blood is feveriſh and diſtempered, by means of inward heat: if it be looſe and thin, it is a ſign of weakneſs; but if hard and dry, it ſhews the horſe to be hot inwardly, or elſe that he is a foul feeder: but if his dung be in a medium between hard and ſoft, and ſmell ſtrong, it is a ſign of health and vigour.

When theſe obſervation have been made on his dung, then feed, dreſs, water, &c. as on his uſual days of reſt, always letting him have variety, and his fill of corn and bread.

The next day have him abroad into the fields again, but do not by any means put him to any labour more than raking him from hill to hill after the dogs, keeping him without ſound of their cry; for the intent of this day's exerciſe is only to keep him in breath, and procure him an appetite.

In riding, let him ſtand ſtill to dung, and look back on it, that you may be able to judge of his ſtate thereby.

When the day is near ſpent, ride him home without the leaſt ſweat, and order him as at other times, except that you are not to give him any ſcourings, or rye-bread.

You may, if you pleaſe, this day, water your horſe both at going into the field and coming out, galloping him after it, to warm the water in his belly.

The

The next day being to be a day of reſt, order him in the ſame manner in every reſpect as on other days of reſt; and as you have ſpent this week, you muſt ſpend the next, without any alteration; and by this time, and this management, you may depend upon it that your horſe has been drawn clean enough for ordinary hunting.

So that afterwards, only taking care to hunt your horſe with moderation twice or three times a week, at your pleaſure, and according to the conſtitution of your horſe's body, you need not queſtion but to have him in as good ſtate and ſtrength as you can deſire, without danger of his wind, eye-ſight, feet, or body.

Having thus drawn your horſe clean, according to art, you will perceive thoſe ſigns before-mentioned very plainly, for his fleſh on his ſhort ribs and buttocks will be as hard as brawn, his flanks will be thin, and nothing to be felt but a double ſkin, and chaps ſo clean from fat, glot, or kernels, that you may hide your fiſts in them; and above all, his exerciſe will give plain demonſtration of the efficacy of this method of ordering him, for he will run three or four miles, three quarters ſpeed, without ſweating, or ſcarce ſo much as blowing.

When the horſe has been brought to this ſtate, you muſt uſe no more ſcourings after hunting (becauſe nature has nothing to work on) but rye-bread and maſh, except the horſe be now and then troubled with ſome little poſe in his head; then bruiſe a little muſtard-ſeed in a fine linen rag, and ſteep it in a quart of ſtrong ale for three or four hours, and untying the rag, mix the muſtard ſeed and the ale with a quarter of a peck of oats, and give it to him.

In the laſt place, the horſe having been thus drawn clean, you ought to take care not to let him grow foul again, through want of either airing or hunting, or any other negligence, leſt by that means you make yourſelf a double trouble.

Of Breeding Hunting and Race-Horſes.

Procure either an *Arabian*, a *Spaniſh*, a *Turkiſh* horſe, or a *Barb*, for a ſtallion, which is well ſhaped, and of a good colour, to beautify your race; and ſome adviſe that he be well marked alſo, though others are of opinion, that marks are not ſo ſignificant as Mr. BLUNDEVIL and FREDERIGO GRISSONE would have us believe.

Thoſe who have travelled into thoſe parts, report, that the right *Arabian* horſes are valued at an almoſt incredible rate; at five hundred, and others ſay, even two or three thouſand pounds a horſe; that the *Arabs* are as careful of keeping the genealogies of their horſes as Princes are in keeping their pedigrees; that they keep them with medals; and that each ſon's portion is uſually two ſuits of arms, two ſcymetars, and one of theſe horſes. The *Arabs* boaſt, that they will ride eighty miles a day without drawing bitt; which is no more than has been performed by ſeveral of our *Engliſh* horſes.

But much more was performed by a highwayman's horſe, who having committed a robbery, rode on the ſame day from *London* to *York*, being a hundred and fifty miles.

Notwithſtanding their great value, and the difficulty in bringing them from *Scanderoon* to *England* by ſea, yet by the care and charge of ſome breeders in the north, the *Arabian* horſe is no ſtranger to theſe parts.

A *Spaniſh* horſe (in the Duke of *Newcaſtle*'s opinion) is the nobleſt horſe in the world, and the moſt beautiful that can be; no horſe is ſo beautifully ſhaped all over from head to croup, and he is abſolutely the beſt ſtallion in the world, either for breed, for the manage, the war, the pad, hunting, or running horſes; but as they are excellent, ſo is their price extravagant, three or four hundred piſtoles being a common price for a *Spaniſh* horſe.

Several have been ſold for ſeven hundred, eight hundred, and a thouſand piſtoles a piece.

The beſt *Spaniſh* horſes are bred in *Andaluſia*, and particularly at *Cordova*, where the King has many ſtuds of mares, and ſo have ſeveral of the *Spaniſh* nobility and gentry.

Beſides the great price they coſt at firſt, the charges of the journey from *Spain* to *England* is very conſiderable; for they muſt travel from *Andaluſia* to *Bilboa* or St. *Sebaſtian*, the neareſt ports to *England*, which is at leaſt four hundred miles; and in that hot country you cannot with ſafety travel your horſe above twenty miles a day; beſides, you muſt be at the expence of a groom and farrier, and the caſualty of ſickneſs, lameneſs, and death: ſo that if he ſhould happen to prove an extraordinary good horſe, by that time you have got him home, he will alſo be an extraordinary dear one.

A *Turkiſh* horſe is but little inferior to the *Spaniſh* in beauty, but ſomewhat odd ſhaped, his head being ſomewhat like that of a camel; he has excellent eyes, a thin neck, excellently riſen, and ſomewhat large of body; his croup is like that of a mule, his legs not ſo underlimbed as that of a *Barb*, but very ſinewy, good paſterns, and good hoofs: they never amble, but trot very well, and are at preſent accounted better ſtallions for gallopers than *Barbs*.

Some merchants tell us, that there cannot be a more noble and diverting ſight, to a lover of horſes, than to walk into the paſtures near *Conſtantinople*, about ſoiling-time, where he may ſee many hundred fine horſes tethered, and every horſe has his attendant or keeper, with his little tent placed near him to lie in, that he may look to him, and take care to ſhift him to freſh graſs.

The price of a *Turkiſh* horſe is commonly one hundred, or one hundred and fifty pounds; and when bought, it is difficult to get a paſs; the Grand Signior being ſo very ſtrict, that he ſeldom (but upon very extraordinary occaſions) permits any of his horſes to be exported out of his dominions.

But if you ſhould attain a liberty ſo to do, and travel by land, unleſs you have a *Turk* or two for a convoy, you will be ſure to have them ſeized on by the way.

And beſides, you will find the ſame difficulties of a long

long journey, through *Germany*, great charges attending it, by having a groom and farrier, who muſt be careful that they entruſt no perſon whatſoever with the care of him but themſelves, eſpecially in ſhoeing him, for 'tis the common practice beyond ſea, as well as here, whereever they ſee a fine horſe, to hire a farrier to prick him, that they may buy him for a ſtallion.

But ſome perſons chuſe to buy horſes at *Smyrna* in *Anatolia*, and from thence, and from *Conſtantinople*, to tranſport them to *England* by ſea, which, if the wind ſerve right, arrive in *England* in a month; though generally the merchants voyages are not made in much leſs than two or three months.

The *Barb* is little inferior to any of the former in beauty; but our modern breeders account him too ſlender and lady-like to breed from, and therefore in the north of *England* they prefer the *Spaniſh* and *Turkiſh* horſe before him.

He is ſo lazy and negligent in his walk, that he will ſtumble on carpet ground.

His trot is like that of a cow, his gallop low, and with much eaſe to himſelf; but he is for the moſt part ſinewy and nervous, excellently winded, and good for a courſe if he be not over-weighted.

The mountain *Barbs* are eſteemed the beſt, becauſe they are ſtrongeſt and largeſt: they belong to the *Allarbes*, who value them themſelves as much as other nations do, and therefore will not part with them to any perſon, except to the Prince of the band to which they belong, who can at any time at his pleaſure command them for his own uſe: but for the other more ordinary ſort, they are to be met with very common in the hands of our nobility and gentry; or if you ſend to *Languedoc*, or *Provence* in *France*, they may be bought there for forty or fifty piſtoles a horſe.

Or if you ſend to *Barbary*, you may buy one for thirty pounds or thereabouts; but in this caſe the charges and journey will be great, for though it be no great voyage from *Tunis* to *Marſeilles* in *France*, yet from *Marſeilles* to *Calais*, by land, is the whole length of *France*, and from thence they are ſhipped for *England*.

The next thing to be conſidered, is the choice of mares, and according to the Duke of NEWCASTLE's opinion, the fineſt mare to breed out of, is one that has been bred of an *Engliſh* mare, and a ſtallion of either of theſe racers; but, if you can't get ſuch a mare, then get a right bred *Engliſh* mare by ſire and dam, that is well fore-handed, well underlaid, and ſtrong put together in general; but in particular, ſee that ſhe have a lean head, wide noſtrils, open chaul, a big weaſand, and the wind-pipe ſtraight and looſe; and of about five or ſix years old; and be ſure that the ſtallion be not too old.

As for the Food of the Stallion.

Keep him as high as poſſibly you can, for the firſt four or five months before the time of covering, with old clean oats and ſplit beans, well hulled, and if you pleaſe you may add bread to them, ſuch as you will hereafter be directed to make; and now and then a handful of clean wheat may be given him, or oats waſhed in ſtrong ale, for variety.

Mr. MORGAN adviſes to ſcatter bay-ſalt and anniſeeds in his provender; but others are of opinion that this is ſuperfluous, while the horſe is in health.

Be ſure to let him have plenty of good old ſweet hay, well cleanſed from duſt, and good wheat ſtraw to lie on; water him twice a day at ſome running ſtream, or elſe in a clear ſtanding pond of water, if you cannot have the firſt; and gallop him after he has drank in ſome meadow or level piece of ground.

Do not ſuffer him to drink his fill at his firſt coming to the water, but after his firſt draught, gallop and ſcope him up and down to warm him, and then bring him to the water again and let him drink his fill, galloping him again as before; never leaving the water till he has drank as much as he will.

By this means you will prevent raw crudities, which the coldneſs of the water would otherwiſe produce, to the detriment of his ſtomach, if you had permitted him to drink his fill at firſt; whereas you allowing him his fill (though by degrees) at laſt, you keep his body from drying too faſt.

Mr. MORGAN, indeed, directs the ſweating of him every day, early in the morning, which he ſays will not only perfect digeſtion, and exhauſt the moiſture from his ſeed, but alſo ſtrengthen and cleanſe his blood and body from all raw and imperfect humours: but others are of opinion it will dry up the radical moiſture too faſt; and likewiſe, inſtead of heightening his pride and luſt, weaken him too much.

As for other rules for the ordering him after watering, and the hours of feeding, &c. they will be more proper,

When the ſtallion is in luſt, and the time of covering him is come, which is beſt to be in *May*, that the foals may fall in the *April* following, otherwiſe they will have little or no graſs.

Pull off his hinder ſhoes, and lead him to the place where the ſtud of mares are which you intend for covering; which place ought to be cloſe, well fenced, and in it a little hut for a man to lie in, and a larger ſhed with a manger to feed your ſtallion with bread and corn during his abode with the mares, and ſhelter him in the heat of the day, or in rainy weather: this cloſe ought to be of ſufficient largeneſs to keep your mares well for two months.

Before you pull off his bridle, let him cover a mare or two in hand, then turn him looſe amongſt them, and put all your mares to him, as well thoſe that are with foal as thoſe which are not, for there is no danger in it; and by that means they will all be ſerved in their height of luſt, and according to the intention of nature.

When your ſtallion has covered them once, he will try them all over again, and thoſe that will admit him, he will ſerve, and when he has done his buſineſs, he will beat againſt the pales, and attempt to be at liberty, which when your man finds (who is to obſerve them night and day, and to take care that no other mares are put to your horſe, and to give you an account which take the horſe and which not, &c.) then take him up, and

and keep him well as you did before, firſt giving him a maſh or two, to help to reſtore nature; for you will find him little but ſkin and bones, and his mane and tail will fall off.

Be ſure never to give him above ten or twelve mares in a ſeaſon at moſt, otherwiſe you will ſcarce recover him againſt the next covering time.

When your ſtallion is paſt this uſe, then buy another, for the beſt kind will in time degenerate. But the Duke of NEWCASTLE ſays, you cannot do better than to let your own mares be covered by their fires.

Some adviſe covering in hand, as the other is called covering out of hand, and is as follows: when you have brought both your horſe and your mare to a proper condition for breeding, by art and good feeding, then ſet ſome ordinary ſtone nag by her for a day or two, to woo her, and that will make her ſo prone to luſt, that ſhe will readily receive your ſtallion, which you ſhould preſent to her, either early in a morning or late in an evening, for a day or two together, and let him cover in hand once or twice, if you pleaſe, at each time obſerving to give the horſe the advantage of ground, and have a perſon ready with a bucket of cold water to throw on the mare's ſhape immediately upon the diſmounting of the horſe, which will make her retain the ſeed ſhe received the better; eſpecially if you get on her back, and trot her up and down for a quarter of an hour, but take care of heating or ſtraining her: and it will not be amiſs if you let them faſt two hours after ſuch act, and then give each of them a warm maſh, and it is odds but this way your mares may be as well ſerved as the other, and your ſtallion laſt you much longer.

If you take care to houſe the mares all the winter, and keep them well, their colts will prove the better. *See* FOALS *and* COLTS.

Of a Hunting-Match.

The firſt thing that is to be conſidered by one who deſigns to match his horſe for his own advantage, and his horſe's credit, is not to flatter himſelf with the opinion of his horſe, by fancying that he is a ſwift, when he is but a ſlow galloper, and that he is a whole running horſe (that is, that he will run four miles without a ſob at the height of his ſpeed) when he is not able to run two or three.

Very probably ſome gentlemen are led into this error, by their being miſtaken in the ſpeed of their hounds, who, for want of trying them againſt other dogs that have been really fleet, have ſuppoſed their own to be ſo, when, in reality, they are but of a middling ſpeed; and becauſe their horſe, when trained, was able to follow them all day, and upon any hour, to command them upon deep as well as light earths, have therefore made a falſe concluſion, that their horſe is as ſwift as the beſt; but upon trial againſt a horſe that has been rightly trained after hounds that were truly fleet, have bought their experience full dear.

Therefore it is adviſable for all lovers of hunting, to procure two or three couple of tried hounds, and once or twice a week to follow them after a train-ſcent, and when he is able to top them on all ſorts of earth, and to endure heats and colds ſtoutly, then he may better rely on his ſpeed and toughneſs.

That horſe which is able to perform a hare chaſe of five or ſix miles briſkly, till his body be as it were bathed in ſweat; and then, after the hare has been killed in a nipping froſty morning, can endure to ſtand till the ſweat be frozen on his back, ſo that he can endure to be pierced with cold as well as the heat; and then even in that extremity of cold, to ride another chaſe as briſkly, and with as much courage as he did the former; that horſe which can thus endure heats and colds, is moſt valued by ſportſmen.

Therefore in order to make a judgment of the goodneſs of a horſe, obſerve him after the death of the firſt hare, if the chaſe has been any thing briſk; if when he is cold he ſhrinks up his body, and draws his legs up together, it is an infallible ſign of want of vigour and courage: the like may be done by the ſlacking of his girths after the firſt chaſe and from the dullneſs of his teeth, and the dullneſs of his countenance, all which are true tokens of faintneſs, and being tired; and ſuch a horſe is not to be relied on in caſe of a wager.

But if your horſe is not only in your own judgment, but alſo in that of ſkilful horſemen, a horſe of approved ſpeed and toughneſs, and you have a mind to match him, or to run for a plate, then you may hope for the following advantages:

But firſt it will not be improper to take notice of the way of making matches in former times, and the modern way of deciding wagers.

The old way of trial was, by running ſo many train-ſcents after hounds, as was agreed upon between the parties concerned, and a bell courſe, this being found not ſo uncertain, but more durable than hare-hunting; and the advantage conſiſted in having the trains led on earth moſt ſuitable to the qualifications of the horſes.

But others chooſe to hunt the hare till ſuch an hour, and then to run this wild gooſe chaſe. *See* WILD GOOSE CHASE.

But this chaſe was found by experience inhuman, and deſtructive to good horſes, eſpecially when two good horſes were matched; for neither being able to diſtance the other, till being both ready to ſink under their riders through weakneſs, oftentimes they were obliged to draw the match, and leave it undecided, after both the horſes were quite ſpoiled.

This induced them to run train-ſcents, which were afterwards changed for three heats, and a ſtraight courſe; and that thoſe who were lovers of hunting-horſes might be encouraged to keep good ones, plates have been erected in many places in *England*, purpoſely for the ſake of hunting-horſes; and the articles of ſome places exclude all others, namely, gallopers, from running.

But whether you would match your horſe againſt a particular horſe, or put him in for a plate, where he muſt run againſt all that come in general, you ought to know the conſtitution and quality of your horſe, before you venture any wager on his head, whether he be hot

and fiery, or cool and temperate in riding: whether he be very ſwift, but not hard at bottom; or ſlow, but yet ſure; and one that will ſtick at marks, or what ſort of ground he moſt delights to gallop; whether he delights to go up hill or down hill, or elſe to ſkelp on a flat; whether to run on deep or light ground; whether on rack-ways or carpet ground; whether amongſt mole-hills, or on meadow ground; whether he be well-winded or thick-winded; ſo that though he will anſwer a ſpur, and mend upon lapping, yet he muſt have eaſe by ſobs.

All theſe particulars are neceſſary to be known, to the end you may draw thoſe advantages from them which may be offered in making matches: As thus for example:

If your horſe be hot and fiery, it is odds but he is fleet withal (for generally ſuch horſes are ſo) and delights to run upon light and hard flats, and muſt be held hard by the rider, that he may have time to recover wind by his ſobs, or elſe his fury will choak him.

But whereas it is the general opinion, that nothing that is violent can be laſting, and therefore that it is impoſſible that ſuch hot-mettled horſes can be tough and hard at bottom; this is reckoned by ſome to be but a popular error: for that theſe two qualities have been reconciled at leaſt ſo far as to make the moſt fiery horſe manageable, and to endure both whip and ſpur; and if ſo, although he ſhould not prove at bottom ſo truly tough as the craving drudge, yet his ſpeed ſhall anſwer for it in all points, and ſerve in its ſtead by the management of his rider.

The beſt way of matching ſuch a horſe is, to agree to run train ſcents, and the fewer the better for you, before you come to the courſe: alſo in theſe train ſcents, the ſhorter you make your diſtance the better; and mind, above all things, to make your bargain to have the leading of the firſt train, and then make choice of ſuch grounds where your horſe may beſt ſhow his ſpeed, and the fleeteſt dogs you can procure: give your hounds as much law before you as your tryers will allow, and then making a looſe, try to win the match with a wind; but if you fail in this attempt, then bear your horſe, and ſave him from the courſe: but if your horſe be ſlow, but well winded, and a true ſpurred nag, then the more train-ſcents you run before you come to the ſtraight courſe the better: but here you ought to obſerve to gain the leading of the firſt train: which in this caſe, you muſt lead it upon ſuch deep earth, that it may not end near any light ground.

For this is the rule received among horſemen, that the next train is to begin where the laſt ends, and the laſt train is to be ended at the ſtarting-place of the courſe, therefore remember to end your laſt on deep earths as well as the firſt.

In the next place, do not make a match againſt a horſe you do not know, without having firſt conſulted ſome ſkilful friend, on whoſe judgment and honeſty you can ſafely rely, and who is able to give a good account of the ſpeed of your adverſary's horſe, and his manner of riding; and if it appears that he is any ways anſwerable to your own in ſpeed or goodneſs, be not too ventureſome, without ſome reaſonable probabilities of winning.

Again, be ſure at no time to give advantage of weight, for you will ſee the inconvenience of it at the latter end of the day: for though a horſe does not feel it when he is freſh, yet it will ſink him very much when he grows weak. The length of a horſe loſt by weight in the firſt train, may prove a diſtance in the ſtraight courſe at laſt, for the weight is the ſame every heat, though his ſtrength is not.

If, on the other hand, you gain any advantage of weight, that the horſemen ſhall ride ſo much weight as you are agreed on, beſides the ſaddle; for by this means the rider, if he be no weight of himſelf, muſt carry the dead weight ſomewhere about him, which will be troubleſome to the rider, as well as the horſe; and the more ſo to the latter becauſe it is more remote from his back, than if it were in the ſaddle, and by conſequence will more diſorder his ſtroak if the rider incline to either ſide than if it were near the center; as is to be ſeen in a pair of ſcales, where if the pin be not placed exactly in the middle of the beam, the longeſt part (as being farther diſtant from the center) will be the heavieſt.

As to the time of dieting, that muſt be according to the nature of your horſe, and the preſent ſtate of body he is in; for though he may be clean enough for ordinary hunting, yet he may be far enough from that perfect ſtate of body that a match requires; and to keep him in ſuch ſtrict diet all the ſeaſon (except on ſuch extraordinary occaſions) would be an unneceſſary expence.

As to the diſpoſition of the horſe for running, that is to be known by uſe and obſervation, for, in this point, horſes differ very much; for ſome run beſt when they are high in caſe; others when they are in a middling condition of fleſh; and ſome again, when they appear to the eye poor and low in fleſh: therefore according to the condition and quality of, and the time required to bring him into the beſt ſtate, the day for the trial of the match ought to be fixed on.

If you have a mind to put him in for ſome hunting plate, there you have not at your diſpoſal the choice of the ground, the weight, nor the horſes you run againſt, but you muſt take them as you find them; only the time for bringing your horſe into a good condition is at your diſcretion; in that you may begin to keep him in ſtrict diet as ſoon or as late as you pleaſe, the time for all plates being uſually fixed, and annually the ſame.

HUNTSMAN. He muſt never forget that every hare has her particular play; that, however, that play is occaſioned or changed according to the variation of wind and weather, the weight of the air, the nature of the ground, and the degrees of eagerneſs with which ſhe is purſued. Nor is he to be unmindful of the numerous accidents ſhe may meet with in her way, to turn her out of her courſe, to cover her flight, to quicken her ſpeed, or to furniſh her with an opportunity of new devices. It is not enough to have a general knowledge of theſe things before the game is ſtarted, but in the heat of action, when moſt tempted to be in raptures with the ſound

of

of the horns, the melody of the cry, and the expectation of ſucceſs, every ſtep we make we muſt calmly obſerve the alterations of ſoil, the poſition of the wind, the time of the year, and no leſs take notice with what ſpeed ſhe is driven, how far ſhe is likely to keep on forward, or to turn ſhort behind; whether ſhe has not been met by paſſengers, frightened by curs, intercepted by ſheep; whether an approaching ſtorm, a riſing wind, a ſudden blaſt of the ſun, the going off of the froſt, the repetition of foiled ground, the decay of her own ſtrength, or any other probable turn of affairs, has not abated or altered the ſcent.

There are other things ſtill no leſs neceſſary to be remembered than the former; as the particular quality and character of each dog; whether the preſent leaders are not apt to over-run it; which are moſt inclined to ſtand upon the double; which are to be depended on in the highway, on the ploughed ground, or a bare turf, in an uncertain ſcent, in the croſſing of freſh game, through a flock of ſheep, upon the foil or ſtole back. The ſize alſo and ſtrength of the hare will make a difference; nor muſt the hounds themſelves be followed ſo cloſely, or ſo loudly cheriſhed when freſh and vigorous, as after they have run off their ſpeed and mettle, and begin to be tired.

It is neceſſary for a young huntſman, when the ſcent lies well, always to keep himſelf pretty far behind. At ſuch a time, eſpecially if it be againſt the wind, it is impoſſible for the poor hare to hold it forward; nor has ſhe any trick or refuge for her life, but to ſtop ſhort by the way, and, when all are paſt, to ſteal immediately back, which is often the occaſion of an irrecoverable fault, in the midſt of the warmeſt ſport and expectations, and is the beſt trick the poor hare has for her life in ſcenting weather; whereas if the huntſman were not too forward, he would have the advantage of ſeeing her ſteal off, and turning her aſide, or more probably the pleaſure of the dogs returning, and thruſting her up in view.

It is very common for the fleeteſt dog to be the beſt favourite, though it would be much better if he was hanged, or exchanged. Be a dog in his own nature ever ſo good, yet he is not good in that pack that is too ſlow for him. There is moſt times work enough for every one of the train, and every one ought to bear his part; but this is impoſſible for the heavy ones to do, if they are run out of breath by the unproportionable ſpeed of a light-heeled leader. For it is not enough that they are able to keep up, which a true hound will labour hard for, but they muſt be able to do it with eaſe, with retention of breath and ſpirits, and with their tongues at command. It muſt never be expected that the indentures of the hare can be well covered, or her doubles ſtruck off (nor is the ſport worth a farthing) if the harriers run yelping in a long ſtring, like deer or fox-hounds.

Another thing neceſſary is to hang up every liar and chanter, not ſparing even thoſe that are ſilly and trifling, without noiſe or ſagacity. It is common enough in numerous kennels to keep ſome for their muſic or beauty, but this is perfectly wrong. It is a certain maxim that every dog that does no good, does a great deal of hurt; they ſerve only to foil the ground, and confound the ſcent; to ſcamper before and interrupt their betters in the moſt difficult points. And we may venture to affirm, by long experience, that four or five couple, all good and truſty hounds, will do more execution than thirty or forty, where a third of them are eager and headſtrong, and, like coxcombs among men, noiſy in doing nothing.

Above all abhor joining with ſtrangers, for this is the way to ſpoil and debauch the ſtaunchеſt hounds, to turn the beſt mettled into mad-headed gallopers, liars, and chatterers, and to put them on nothing but out-running their rivals, and over-running the ſcent. The emulation of leading (in dogs and their maſters) has been the utmoſt ruin of many a good cry. Nor are ſtrange huntſmen of much better conſequence than ſtrange companions; for as the ſkill and excellence of theſe animals conſiſt in uſe and habit, they ſhould always be accuſtomed to the ſame voice, the ſame notes, or hallooings, and the ſame turns of chiding, cheriſhing, preſſing, or recalling; nor ſhould the country fellows be allowed, in their tranſports, to extend their throats.

Nor is it good to encourage change of game, becauſe mere 'ſquires would be at a great loſs to kill ſome of their time, had they nothing to kill, when hares are out of ſeaſon. However, I am well ſatisfied that the beſt harriers are thoſe that know no other. Nor is it adviſeable to let them change for a freſh hare, as long as they can poſſibly follow the old, nor to take off their noſes from the ſcent they are upon, for the cutting ſhorter or gaining of ground. This laſt is the common trick with pot-hunters, but as it is unfair and barbarous to the hare, ſo you will ſeldom find it of advantage to the hounds.

HURLE-BONE, IN A HORSE. A bone near the middle of the buttock, very apt to go out of its ſockets with a hurt or ſtrain.

HUXING OF PIKE. A particular method for the catching of this ſort of fiſh. For this uſe, take as large bladders as can be got; blow them up, and tie them cloſe and ſtrong; then at the mouth of each tie a line, longer or ſhorter, according to the depth of water; at the end of each line faſten an armed hook artificially baited, and put them into the water, with the advantage of the wind, that they may gently move up and down the pond. Now when one maſter pike has ſtruck himſelf, it is a moſt pleaſing diverſion to ſee him bounce about in the water with a bladder. When you ſee him almoſt ſpent, take him up. *See* PIKE.

JACK-DAW. A chattering, ſubtle bird, that is a great devourer of beans, cherries, and other garden-fruits.

A very good method to catch them is, to drive a ſtake into the ground about four feet high, above the ſurface of the earth, but ſo picked at the top, that the jack-daw cannot ſettle on it; within a foot of which, a hole muſt be bored through, three quarters of an inch diameter, whereto you ſhould fit a pin or ſtick, ſix or eight inches long, then make a loop or ſpring of horſe-hair faſtened to a ſtick or wand of hazle, which may be entered into

the ſtake at a hole near the ground; that done, by bending of the ſtick, ſlip the horſe-hair loop through the upper holes, and put the ſhort ſtick ſo, that the jack-daw when he comes, finding a reſting-place to ſtand conveniently amongſt his food, perches on the ſhort ſtick, which by his weight immediately falls, and gives the ſpring advantage of holding him by the legs.

JARDES, } are callous and hard ſwellings in
JARDONS, } the hinder legs of a horſe, ſeated on the outſides of the hough, as the ſpavin is on the inſide. It is more to be feared than the ſpavin. It is not very common, ſo that but few people know it, though it be as painful as the ſpavin, and makes a horſe halt. In this caſe there is no remedy but firing, which does not always ſucceed.

If upon the fore-ſinew of the leg, between the ſpavin on the inſide and the jardon without, there is a circle that joins them, and encompaſſes the nerve of the inſtep, the horſe is ſpoiled and ruined paſt all recovery.

JARRETIER. An obſolete *French* word ſignifying a horſe whoſe houghs grow too cloſe together.

In, inſide within; and out, outſide without

The inner heel, the outer heel; the inner leg, the outer leg; the in rein, the out rein.

This way of ſpeaking relates to ſeveral things, according as the horſe works to the right or left, upon volts; or as he works along by a wall, a hedge, or ſome ſuch thing.

Thus it ſerves to diſtinguiſh on what hand, or what ſide the horſeman is to give the aids to a horſe upon a manege.

For along by a wall, the outer leg is the leg of a ſide with the wall, and the other leg is the in-leg.

And upon volts; if a horſe works upon the right, the right heel is the inner heel, the right leg the inner leg; and ſo by conſequence, the left heel and left leg muſt be the outer heel and leg.

Now the downright contrary will happen, if the horſe works to the left.

Now-a-days, the riding-maſters, to be eaſier underſtood, uſe the terms right and left; as for inſtance, aſſiſt the horſe with the right heel, with the right leg, with the right rein; taking the ſituation of the heels and legs, with reſpect to the volt. *See* ENLARGE, GALLOP, FALSE, *and* LARGE.

JAUNDICE IN SHEEP:

Burn two ounces of alum; beat it to powder, with an ounce of turmeric. Put a drachm of ſaffron to them; and give this warm in half a pint of man's ſtale urine.

JAW-BONES OF A HORSE, ſhould be narrow and lean, but the diſtance between them and the throat, large and hollow, that he may the better place his head: if the jaw-bone be too ſquare, that is, if there be too great a diſtance between the eye and that part of it which touches his neck, it is not only ugly and unſeemly, but even hinders him from placing his head; and if there be but little diſtance betwixt the jaw-bones, then as ſoon as you pull the bridle to bring his head into its moſt becoming poſture, the bone meeting with his neck will hinder him, eſpecially if alſo he have a ſhort and thick neck, with that imperfection.

JAW-TEETH. *See* TEETH OF A HORSE.

JAY. *See* JACK-DAW.

JENNY-WREN. A curious fine ſong-bird of a chearful nature, ſo that none can exceed him in his manner of ſinging.

This bird is of a pretty ſpeckled colour, very pleaſant to the eye, and when he ſings, cocks up his tail, throwing out his notes with much pleaſure and ſprightlineſs.

The hen breeds twice a year; firſt, about the latter end of *April*; makes her neſt with dry moſs and leaves, ſo artificially that it is a very hard matter to diſcover it, it being amongſt ſhrubs and hedges, where ivy grows very thick; ſome build in old hovels, and barns, but they are ſuch as are not uſed to hedges.

They cloſe their neſt round, leaving but a little hole to go in and out at, and will lay abundance of eggs, ſometimes to the number of eighteen, nay, ſixteen young ones have been taken out of one neſt, which, conſidering how ſmall the bird is, appears ſtrange.

Their ſecond time of breeding is in the middle of *June*, for by that time the other neſt will be brought up, and ſhift for themſelves; but if you intend to keep any of them, take them at twelve or fourteen days old out of the neſt, and give them ſheep's heart and egg, minced very ſmall, taking away the fat and the ſinews, or elſe ſome of a calf's or heifer's heart.

They are to be fed in their neſts very often in a day, giving them one or two morſels at one time, and no more, leſt they caſt it up again, by receiving more than they could bear or digeſt, and ſo expire.

They ſhould be fed with a little ſtick; at the end whereof, take up the meat about the bigneſs of a white pea; and when you perceive them to pick it up from the ſtick themſelves, put them into cages; afterwards, having provided a pan or two, put ſome of the ſame meat therein, and alſo about the ſides of every cage to entice them to eat; however, you muſt ſtill feed them five or ſix times a day for better ſecurity, leſt they ſhould neglect themſelves and die, when all your trouble is almoſt paſt; as ſoon as they have found the way to feed alone, give them now and then ſome paſte; if you perceive them to eat heartily, and like it very well, you may forbear giving them any more heart.

Further, you muſt once in two or three days give them a ſpider or two; and if you have a mind your bird ſhould learn to whiſtle tunes, take the pains to teach him, and he will anſwer your expectation.

Now for the diſtinguiſhing of cocks from hens, when you have got a whole neſt, obſerve which are the browneſt and largeſt, and mark them: alſo take notice of their recording; for ſuch of them as record themſelves in the neſt before they can feed themſelves, and thoſe whoſe throats grow big as they record, they are certainly cocks.

JESSES. Ribbons that hang down from garlands or

crowns in Falconry, alſo ſhort ſtraps of leather faſtened to the hawk's legs, and ſo to the vervels.

IMPING. This term, in Falconry, ſignifies the inſerting of a feather in the wing of a hawk, in the place of one that is broke.

IMPOSTHUME IN HORSES is an unnatural ſwelling of humours, or corrupt matter in any part of the body.

This diſtemper may happen to a horſe ſeveral ways, as by a collection of filthy humours, cauſing ſwellings, which in time grow to an inflammation, and at laſt break out into foul, mattery, and running ſores.

When an inflammatory ſwelling does not readily give way to bleeding, purging, rubbing the part with ſpirit of wine, vinegar, or with ſuch other means as are uſually applied for diſperſing; or, if it appears at the decline of a fever, or any other diſeaſe; all cooling and repelling methods ſhould be avoided, and ſuppuration promoted

For the cold, ſlow ſort of abſceſſes that ſuppurate with difficulty, the gum plaiſter, mixed with one fourth part of the mercurial plaiſter, may be proper enough: it ſhould be renewed when it will ſtick on no longer, for only until then it is good. For the inflammatory ſort, which ſoon fill with good matter, poultices are the beſt application, and the following neat and cheap one may anſwer in every caſe of this kind.

A Suppurating Poultice.

Take a proper quantity of wheat-bran, ſcald it with boiling hot water, enough to make it into the conſiſtence of a poultice, then add to it a ſmall quantity of lard, or any other greaſe; and while it is as warm as you can bear it when laid on the back of your hand, apply it to the ſwelling.

All poultices ſhould be ſtiff enough to prevent their running; and when they are deſigned to promote ſuppuration, they ſhould be taken off and warmed again as often as they cool, which will be at leaſt every four hours.

Continue the poultice until, by preſſing the abſceſs gently with your finger, you can perceive the matter in it fluctuate; at which time it will be proper to make an opening in the part where the ſkin ſeems the thinneſt: make the opening as large as you conveniently can, for then the matter will be well diſcharged, and the wound will be healed with leſs difficulty.

The matter being diſcharged, dreſs with dry lint or ſoft tow, gently preſſed into the opening, then cover it and the whole remaining ſwelling with a pledget of tow, ſpread with the digeſtive ointment; and over theſe, if the ſituation of the part will admit, lay a warm poultice, which may now be renewed only night and morning, until all remaining hardneſs in the abſceſs is diſſolved; after which, once a day will be often enough to dreſs the wound, which will ſoon heal, with only a pledget of tow, thinly ſpread with the digeſtive ointment, properly ſecured.

The Digeſtive Ointment.

Take of linſeed oil, two pounds; yellow roſin and yellow wax, of each one pound; Venice-turpentine, three ounces; melt them together over a gentle fire, then ſtir it continually until it is cool enough to put into an earthen pot.

Sometimes the wound and the bottom of the abſceſs digeſts unkindly, the matter becoming thin and ſharp, in which caſe the aſſiſtance of the diſcutient fomentations each time the dreſſings are removed, hath uſually the deſired effect; and if the bottom of the ſore can eaſily be come at, pledgets of the mercurial digeſtive may be applied thereto once a day.

The Mercurial Digeſtive.

Take half an ounce of red precipitate, in fine powder, mix it well with four ounces of the digeſtive ointment.

A Diſcutient Fomentation.

Take of chamomile-flowers, and common wormwood, each three ounces; boil them a few minutes in ten pints of water, then pour off the liquor for uſe.

Fomentations are always to be uſed in the following manner: The fomentation being already as hot as you can bear it with your hand, you muſt have two flannel cloths large enough, when three or four times doubled, to cover the part which is to be fomented; dip one of theſe cloths into the hot liquor, and immediately wring it as dry as you can; then apply it to the diſeaſed part, keeping it cloſe there until the heat begins to abate, by which time the other cloth will be ready to be applied, which muſt be done as quickly as poſſible after the removal of that which was firſt laid on: and thus continue to apply them alternately, until eight or twelve have been applied.

Abſceſſes are ſometimes formed in the eye, occaſioning great inflammation and pain: the matter is ſometimes ſuperficial, and then the abſceſs is more prominent; at other times it is deeper, and aſſumes a flatter form; but when it is very deep, there will be ſeldom any ſwelling at all; in which caſe it burſts inward, and the eye is totally deſtroyed. In the other two caſes, the treatment will be ſo much the ſame with that of abſceſſes in general, that the peculiarities required on account of the ſituation, will be readily ſuggeſted by every practitioner. For the moſt part, a loſs of ſight is the conſequence of them all, becauſe of the cicatrix or of the ulcer which is left behind.

INCORDING. Burſtenneſs in a horſe. *See* RUPTURE.

INN OR INNER. In the manege, is applied differently according as the horſe works to the right or left, upon the volt, or as he works along by a wall, a hedge, or the like: for in moving by a wall, the leg next the wall

wall is called the outer leg, and the other the inner leg: and upon volts, if a horſe works to the right, the right heel is the inner heel, and the right leg the inner leg; but if he works to the left, the left heel is the inner heel, &c. At preſent riding-maſters, in order to be more eaſily underſtood, generally uſe the term right and left, inſtead of outer and inner.

INSTEP is that part of the hinder leg of a horſe that correſponds to the ſhank in the fore legs; extended from the ham to the paſtern joint. It ſhould be big, flat, and in a perpendicular line to the ground, when the horſe is in his natural poſture of ſtanding; ſo that when the inſteps do not ſtand perpendicularly, it is a certain ſign of weakneſs, either in the reins or hinder quarters.

INTERFERE, or Cut. To knock or rub one heel againſt another, in going, as horſes ſometimes do.

There are four accidents that cauſe a horſe to interfere.

1. Wearineſs.
2. Weakneſs in his reins.
3. Not knowing how to go.
4. His not being accuſtomed to travel.

To which may be added, his being badly, or too old ſhod.

It happens more frequently behind than before, and is eaſily helped by ſhoeing, eſpecially if the horſe be young.

It is ſoon diſcovered, by the ſkin's being cut on the inſides of the paſtern-joints, and many times galled to the very bone, ſo that the horſe often halts with it, and has his paſtern-joints ſwelled.

To redreſs this grievance, 1. If a horſe cuts through wearineſs, there is no better remedy than giving him reſt, and feeding him well.

2. If he cuts before, take off his two fore-ſhoes, take down the out-quarter of each foot very much, and place the inner edge of the ſhoe, ſo as it may exactly follow the compaſs of his foot, without it's any ways exceeding towards the heel, then cut the ſponges equal with the heel, and rivet the nails ſo nicely into the horn, that they may not at all appear above it, or elſe burn the horn with the point of a red-hot iron, a little below the hole of each nail, which done, beat down and rivet them in thoſe holes.

If after this method of ſhoeing he ſtill continues to cut himſelf, you are to thicken the inner quarters and ſponges of his ſhoes, ſo as they may double the thick of thoſe on the outſide, and always pare down his out-quarters even, almoſt to the quick, without the leaſt touching thoſe on the inſide; but be ſure to rivet the nails very juſtly and cloſe.

3. If the horſe cut behind, unſhoe him, and pare down his out-quarters, even almoſt to the quick; give his ſhoes calkins only on the inſide, and ſuch a turn as may make them abſolutely follow the compaſs and ſhape of his foot without exceeding it, eſpecially in the inner quarters; and above all, rivet the nails exactly, for one ſingle rivet may cauſe a great diſorder.

4. If notwithſtanding all theſe precautions, your horſe does not forbear cutting, you muſt (beſides what has been already ordered) take care that no nails at all be drove upon the inſide, but only make a beak at the toe to keep the ſhoe firm in its place, ſo that continuing this method for ſome time, the horſe will learn to walk, and no longer interfere, though he were afterwards ſhod in the uſual manner.

5. To prevent this diſorder, ſome fix little boots of leather, or of an old hat, about the paſtern-joints, which are made narrower at top than bottom, and therefore only faſtened at top.

6. Others wrap about the paſtern-joint a piece of ſheep's ſkin, with the woolly ſide next to the horſe; and when it is worn out, apply a new one.

INTERMEWING (among Falconers) is the hawk's mewing from the firſt change of her coat, till ſhe turn white.

JOCKEY. One that trims up horſes, and rides about with horſes for ſale.

JOUK (in Falconry) a hawk is ſaid to jouk when ſhe falls aſleep.

JOURNEY. To travel by land, properly as much ground as might be paſſed over in a day; alſo a tract or extent of ground, way or march.

Directions for preſerving a Horſe ſound upon a Journey.

See that his ſhoes be not too ſtraight, or preſs his feet, but be exactly ſhaped; and let him be ſhod ſome days before you begin a journey, that they may be ſettled to his feet.

Obſerve that he is furniſhed with a bitt proper for him, and by no means too heavy, which may incline him to carry low, or to reſt upon the hand when he grows weary, which horſemen call making uſe of his fifth leg.

The mouth of the bitt ſhould reſt upon his bars, about half a finger's breadth from his tuſhes, ſo as not to make him frumble his lips; the curb ſhould reſt in the hollow of his beard, a little above the chin; and if it gall him, you muſt defend the place with a piece of buff, or other ſoft leather.

Take notice that the ſaddle does not reſt upon his withers, reins, or back-bone, and that one part of it does not preſs his back more than another.

Some riders gall a horſe's ſides below the ſaddle with their ſtirrup-leathers, eſpecially if he be lean; to hinder it you ſhould fix a leather ſtrap between the points of the fore and hind bows of the ſaddle, and make the ſtirrup-leather paſs over them.

Begin your journey with ſhort marches, eſpecially if your horſe has not been exerciſed for a long time: ſuffer him to ſtale as often as you find him inclined, and not only ſo, but invite him to it; but do not excite your mares to ſtale, becauſe their vigour will be thereby diminiſhed.

It is adviſeable to ride very ſoftly, for a quarter or half an hour before you arrive at the inn, that the horſe not being too warm, nor out of breath, when put into the ſtable, you may unbridle him; but if your buſineſs obliges you to put on ſharply, you muſt then (the weather being warm) let him be walked in a man's hand, that

that he may cool by degrees; otherwiſe, if it be very cold, let him be covered with cloths, and walked up and down in ſome place free from wind; but in caſe you have not the conveniency of a ſheltered walk, ſtable him forthwith, and let his whole body be rubbed and dried with ſtraw.

Although ſome people will have their horſes legs rubbed down with ſtraw as ſoon as they are brought into the ſtable, thinking to ſupple them by that means; yet it is one of the greateſt errors that can be committed, and produces no other effects than to draw down into the legs thoſe humours that are always ſtirred up by the fatigue of the journey: not that the rubbing of horſes legs is to be diſallowed, on the contrary, we highly approve of it, only would not have it done at their firſt arrival, but when they are perfectly cooled.

Being come to your inn, as ſoon as your horſe is partly dried, and ceaſes to beat in the flanks, let him be unbridled, his bitt waſhed, cleanſed and wiped, and let him eat his hay at pleaſure.

If your horſe be very dry, and you have not given him water on the road, give him oats waſhed in good mild ale.

The duſt and ſand will ſometimes ſo dry the tongues and mouths of horſes, that they loſe their appetites: in ſuch caſe give them bran well moiſtened with water, to cool and refreſh their mouths: or waſh their mouths and tongues with a wet ſponge, to oblige them to eat.

The foregoing directions are to be obſerved after moderate riding, but if you have rode exceſſive hard, unſaddle your horſe, and ſcrape off the ſweat with a ſweating-knife, or ſcraper, holding it with both hands, and going always with the hair; then rub his head and ears with a large hair-cloth, wipe him alſo between the fore-legs and hind-legs; in the mean while, his body ſhould be rubbed all over with ſtraw, eſpecially under his belly and beneath the ſaddle, till he is thoroughly dry.

That done, ſet on the ſaddle again, cover him, and if you have a warm place, let him be gently led up and down in it, for a quarter of an hour, but if not, let him dry where he ſtands.

Or you may unſaddle him immediately; ſcrape off the ſweat; let the oſtler take a little vinegar in his mouth and ſquirt it into the horſe's; then rub his head, between the fore and hind-legs, and his whole body, till he is pretty dry; let him not drink till thoroughly cool and has eat a few oats; for many, by drinking too ſoon, have been ſpoiled. Set the ſaddle in the ſun or by a fire in order to dry the pannels.

When horſes are arrived in an inn, a man ſhould, before they are unbridled, lift up their feet, to ſee whether they want any of their ſhoes, or if thoſe they have do not reſt upon their ſides, afterwards he ſhould pick and clear them of the earth and gravel, which may be got betwixt their ſhoes and ſoles.

If you water them abroad, upon their return from the river, cauſe their feet to be ſtopped with cow-dung, which will eaſe the pain therein; and if it be in the evening, let the dung continue in their feet all night, to keep them ſoft and in good condition; but if your horſe have brittle feet, it will be requiſite to anoint the fore-feet, at the on-ſetting of the hoofs, with butter, oil, or hog's greaſe, before you water him in the morning, and in dry weather they ſhould be alſo greaſed at noon.

Many horſes, as ſoon as unbridled, inſtead of eating lay themſelves down to reſt, by reaſon of the great pain they have in their feet, ſo that a man is apt to think them ſick, but if he looks to their eyes, he will ſee they are lively and good, and if he offers them meat as they are lying, they will eat it very willingly; yet if he handles their feet, he will find them extremely hot, which diſcovers their ſufferings in that part.

You muſt therefore ſee if their ſhoes do not reſt upon their ſoles, which is ſomewhat difficult to be certainly known, without unſhoeing them, but if you take off their ſhoes, then look to the inſide of them, and you may perceive that thoſe parts which reſt upon the ſole, are more ſmooth and ſhining than the others: in this caſe you are to pare their feet in thoſe parts, and fix on their ſhoes again, anointing the hoofs, and ſtopping the ſoles with ſcalding hot black pitch or tar.

After a long day's journey, at night feel your horſe's back, if it be pinched, galled or ſwelled, (if you do not immediately diſcover it, perhaps you may after ſupper) there is nothing better than to rub it with good brandy and the white of an egg. If the galls are between the legs, uſe the ſame remedy; but if the oſtler rubs him well between the legs he will ſeldom be galled in that part.

In order to preſerve horſes after travel, take theſe few uſeful inſtructions. When you are arrived from a journey, immediately draw the two heel nails of the fore-feet; and, if it be a large ſhoe, then four: two or three days after you may bleed him in the neck, and feed him for ten or twelve days only with wet bran, without giving him any oats; but keep him well littered.

The reaſon why you are to draw the heel-nails is, becauſe the heels are apt to ſwell, and if they are not thus eaſed, the ſhoes would preſs and ſtraighten them too much: it is alſo adviſable to ſtop them with cow-dung for a-while, but do not take the ſhoes off, nor pare the feet, becauſe the humours are drawn down by ſuch means.

The following bath will be very ſerviceable for preſerving your horſe's legs: Take the dung of a cow or ox, and make it thin with vinegar, ſo as to be of the conſiſtence of thick broth, and having added a handful of ſmall ſalt, rub his fore-legs from the knees, and the hind-legs from the gambrels, chafing them well with and againſt the hair, that the remedy may ſink in and ſtick to thoſe parts, that they may be all covered over with it. Thus leave the horſe till morning, not wetting his legs, but giving him his water that evening in a pail: next morning lead him to the river, or waſh his legs in well-water, which is very good, and will keep them from ſwelling.

Thoſe perſons, who to recover their horſes feet, make a hole in them, which they fill with moiſtened cow-dung, and keep it in their fore-feet during the ſpace of a month, do very ill, becauſe, though the continual moiſture that iſſues from the dung, occaſions the grow-

ing

ing of the hoof, yet it dries and ſhrinks it ſo exceſſively when out of that place, that it ſplits and breaks like glaſs, and the foot immediately ſtraitens.

For it is certain that cow-dung (contrary to the opinion of many people) ſpoils a horſe's hoof: it does indeed moiſten the ſole, but dries up the hoof, which is of a different nature from it.

In order therefore to recover a horſe's feet, inſtead of cow-dung, fill a hole with blue wet clay, and make him keep his fore-feet in it for a month.

For a horſe that has been rid extremely hard, that there is danger of foundering, ſee an excellent remedy under the head FOUNDERING IN THE FEET.

Moſt horſes that are fatigued, or over-rid, and made lean by long journies, have their flanks altered without being purſy, eſpecially vigorous horſes that have worked too violently.

There is no better method to recover them, than to give each o them in the morning, half a pound of honey very well mingled with ſcalded bran, and when they readily eat the half pound, give them the next time a whole one, and afterwards two pounds, every day continuing this courſe till your horſes are empty, and purge kindly with it; but as ſoon as you perceive that their purging ceaſes, forbear to give them any more honey.

You may adminiſter powder of liquorice in the ſcalded bran for a conſiderable time; and to cool their blood, it will not be improper to let them have three or four gliſters: if their flanks do not recover, give them powder for purſive horſes; *which ſee under that Article.*

In caſe the horſe be very lean, it is expedient to give him ſome wet bran, over and above his proportion of oats; and graſs is alſo extraordinarily beneficial if he be not purſive.

If it be a mare, put her to a horſe, and if ſhe never had a foal before it will enlarge her belly.

Sometimes exceſſive feeding may do horſes more harm than good, by rendering them ſubject to the farcy.

You ſhould therefore be cautious in giving them too great a quantity at a time, and take a little blood from them now and then.

When a horſe begins to drink heartily, it is a certain ſign that he will recover in a ſhort time; but as to the method of giving him water during a journey, *ſee* WATERING OF HORSES.

ITCH IN HORSES, a diſtemper which may be perceived by their rubbing their legs till the hair comes off.

Bleed your horſe well; take wood aſhes a peck, burdock-roots a handful or two, man's urine two gallons, and the like quantity of water wherein tobacco-ſtalks have been ſteeped; boil them into a lye, and with it waſh the grieved part when it is very hot. Or,

Uſe a mixture of two ounces of ſorbs, which muſt be infuſed for ſix hours in a pint of ſtrong vinegar, and ſet it on the fire; and rub the part affected with it twice, and it will cure it.—It will alſo be proper to bleed him in the bows.

ITCH, OR SCAB, IN SHEEP; this comes by over-much rainy weather, miſts, or fogs, too much expoſing them abroad to heats and colds.

Take the juice of rue, tar-water, and gooſe-greaſe, and anoint well the places as hot as may be endured, having firſt clipt away the wool; then clap ſome light wool over it, or flock-ſhreds, and it will peel off. And, to make the ſpeedier cure, let blood in the tail, and under both the ears, and give in a glaſs of wine the juice of carduus and flour of brimſtone.

ITCH, IN GOATS.

Take the tender tops of broom, and ſteep them when bruiſed in man's urine a night or two; and, by waſhing them with this warm, it will kill the itch, and keep the hair from coming off.

JUCKING-TIME, the ſeaſon of going to the haunts of partridges, very early in the morning, or in the cloſe of the evening, there to liſten for the calling of the cock-partridge, which will be very loud, with no ſmall eagerneſs, and will make the hen anſwer him, ſo that they ſoon come together, as may eaſily be known by their chattering and rejoicing notes.

Whereupon you may take your range about them, drawing in, little by little, to the place where you heard them juck.

JUKE, OR JUG: to perch and rooſt as a hawk and other birds do.

KEEPER OF THE FOREST, otherwiſe called, chief warden of the foreſt, is he that has the principal government of all things belonging to a royal foreſt, and the check of all the other officers; ſo that the Lord Chief-Juſtice in Eyre of the foreſt, when he thinks fit to hold his juſtice-ſeat, ſends out his general ſummon to the keeper forty days before, to warn all under-officers to appear before him at the day aſſigned in the ſummons.

KENNEL, a place or little houſe for hounds; and in a metaphorical ſenſe, uſed for the pack of hounds itſelf.

To make a compleat kennel, three conveniences ought to be obſerved, *viz.* a ſweet air, freſh water, and the morning-ſun, for which the following rules may be uſeful:

The court ſhould be large, for the more ſpacious it is, the better it will be for the hounds to refreſh themſelves in; and it ſhould be well walled, or fenced about, to prevent their getting out, but not ſo high as to keep out the ſun or wind.

The water, if poſſible, ſhould run through ſome part of the court or yard; or for want thereof, have a well with a ſtone trough about a foot and a half high, always kept with freſh water, to the end the hounds may drink when they pleaſe; and at one end of the trough there muſt be a hole to let out the water for cleanſing it.

Let the kennel be built in the higheſt part of the court, in which there ſhould be two rooms, one of which ſhould be larger than the other, with a large chimney to make a fire, when need requires.

This room ſhould be raiſed about three feet from the ground, and in the floor there ſhould be two gutters for the conveyance of the urine.

There

There muſt be diſperſed up and down ſmall bedſteads raiſed a foot from the floor, with holes pierced through the planks for drawing away their urine.

The other room muſt be for the huntſman to keep his poles, whips, liams, ſalves, and the like neceſſaries; there ſhould be a copper for the boiling, dreſſing, and ordering of their food, when they come home wet and weary; for at ſuch times, they ſhould be cheriſhed as inſtruments of your recreation and profit, that they may delight in your ſervice, and taſte of your bounty, and you need not doubt but to have credit of them in the field.

Be careful not to give them any thing to drink in veſſels of copper; and as to the proportion and quality of allowance for food, it muſt be ordered with relation to the nature of the hounds and their ſizes: three buſhel and a half of wheat bran, will ſerve ten couple and a half of middling ſized hounds a week, giving them ſometimes beef broth, whey, ſlipt-milk, chippings of bread, bones, and ſometimes a little horſe-fleſh; for change of food creates a good appetite, and preſerves health.

The oats and wheat bran muſt be boiled and thickened with milk and butter-milk, with ſome chippings, or ſome broken meat boiled therein.

As concerning horſe fleſh, thoſe beſt ſkilled this way, think of all their foods (provided it be given with diſcretion) horſe-fleſh the beſt, and hotteſt; but be ſure to flay, or ſkin the beaſts, leſt the dogs diſcerning the hair, may fall on them when living in the field: as for dogs that are accuſtomed to hunt the hare, it is not good to give them any meat, becauſe it is apt to withdraw their ſcent or affections from the chaſe, as their fleſh is not very ſweet, nor their ſcents very ſtrong.

If the huntſman perceives that through long and frequent chaſes the hounds fall away, he muſt be more careful in feeding and cheriſhing them up with ſome good broth, of boiled oxen or ſheep's hearts.

On ſuch days as the hounds do not hunt, the beſt times to feed them are early, before ſun-riſing, and late in the evening, after ſun-ſet; and on the days they hunt, they ought to be rewarded as they come home, be it when it will, with a good ſupper, for nothing is a greater diſcouragement to a hound than to go to ſleep with an empty belly after hard labour.

If you have more dead fleſh than you have preſent occaſion for, it may be preſerved a week or ten days ſweet, by burying it under ground. *See* ENTERING OF HOUNDS.

To KENNEL; a term applied by fox-hunters to a fox when he lies in his hole.

KERNELS under the throat in horſes, how to remove:

Take half a pint of brandy or aqua vitæ, put into it a quarter of a pound of common ſoap: boil them till they become thick as a plaſter, and apply it plaſter-wiſe to the place grieved; and, if no ſtore of corruption or a contraction of evil humours attend thoſe kernels, then it will ſink them, ſo that they will not be offenſive; and, if there be humours, it will break and diſperſe them.

KESTREL, a kind of hawk. *See* CASTREL.

KICKER AGAINST THE SPURS. *See* RAMINGUE.

KIDS, to wean:

Get them from their dams, and nouriſh them ſome days with milk; then give them ſome brouſings of green leaves if in ſummer, and in winter green leaves, or ears of wheat, boiled barley or bran; and by degrees they will ſhift well for themſelves.

KIDNEYS OF HORSES, the diſeaſes and cure, *ſee* URINE.

KINDER (amongſt Hunters) a company of cats.

To KINDLE, the term uſed for a rabbet when ſhe brings forth her young.

KINK IN ANGLING, is a term uſed in trowling, when the line is twiſted between the top of the rod and the ring, through which it ought to run freely; or when part of the line twiſts about the other part that is coiled in your left hand. Silk lines are more apt to kink than hair-lines.

KIPPER-TIME, a ſpace of time between the feſtival of the invention of the Holy Croſs, *May* 3, and *Twelfth-Day*; during which, ſalmon-fiſhing in the river *Thames*, from *Graveſend* to *Henly*, was forbidden, by ROT. PARL. 50 EDW. III.

KITES, hawks, and other birds of prey, wait for chickens, pigeons, pheaſants; and upon which account it is neceſſary that the countryman be conſtantly furniſhed with a good fowling-piece to deſtroy and ſcare them away.

You may alſo place ſmall iron gins about the breadth of one's hand, made like a fox gin, and baited with raw-fleſh, which is a very good means to catch them; and further they may be frighted away by ſtraining lines, or pieces of nets over the places where you keep pigeons, pheaſants, *&c.*

Steep the entrails of pigs, fowls, or rabbets, in the lees of wine into which you have infuſed a quantity of nux vomica, and throw a bait where the kites come in the evening, or early in the morning. This will intoxicate them ſo, that a perſon waiting near the ſpot may eaſily take them.

Or, get three ſmall rods growing at the end of a bough, and place them on pretty big forked ſticks, ſet in the ground, when you have rubbed them over with birdlime; ſo order it that two may lie on the ground, a third over them, and a ſtale of a live mouſe or chicken, which will make them eagerly ſwoop, when, the birdlimed twigs taking their wings, it will ſtop their riſing; or, if they flutter up, they will fall again, ſo that you may take them if you watch for them. You may alſo take them with traps or ſtrings ſo baited.

To recover them ſo as to tame them. When they are caught, during the fit of intoxication pour a little ſallad oil down their throats and rub their heads with ſtrong white-wine vinegar; and the cure will be ſpeedily effected.

To KNAP; to ſnap or break, to pick at; amongſt hunters, the ſame as to browſe, or to feed upon the tops of young leaves, *&c.*

KNEE OF A HORSE, is the joint of the fore-quarters, that joins the fore thigh to the ſhank.

LAIR, a term in hunting which ſignifies the place where the deer harbour by day.

LAMB, leaf-ſickneſs in. This often comes by too much brouſing on hawthorn or oak leaves; known by ſtaggering or turning round, through the chillineſs of blood cauſed by ſuch feeding, or phlegm amaſſed about the brain.

Diſſolve aſſafœtida in warm water, and put half a ſpoonful into each ear of the lamb or ſheep, and ſtop the ear cloſe; and ſo the cure will be wrought, if timely taken.

LAMB yeaned ſick, to cure:

Boil a little ſaffron and cinnamon in ſome of the milk of the dam, and give it the lamb, and it will grow healthful and ſtrong.

LAMB, to prevent the ewe caſting:

If you perceive a weakneſs in the ewe, to bring forth with pain, or fear the loſs of the lamb, lay her ſoft, and boil a little horſemint (or, for want of that, other mint) in a pint of ale, and ſo give it her warm, and ſhe will yean with eaſe.

LAMENESS IN SHEEP, which is occaſioned by too much wool growing in the fleſhy part of their feet.

Rub between their claws, alum, vinegar, and bay-ſalt.

LAME; a horſe is ſaid to be lame of an ear, when he halts upon a walk or a trot, and keeps time in his halting with the motions of his head, for all lame horſes do not keep time after that rate. *See* HALTING.

LAME OF THE BRIDLE, is likewiſe uſed by the way of raillery, to ſignify the ſame thing.

LAMENESS IN A HORSE, in any joint, limb, or member of the body, may be found out three ways:

Cauſe him to be turned at the halter's end, on either hand, ſuddenly and ſwiftly, upon as hard a way as can be picked out; and if he has any ache, wrench, or grief in his fore parts, it will appear when he turns upon that hand on which the grief is; he will favour that leg, and ſo run both towards and from the man, eſpecially if done at a little yielding hill: but if you cannot find it out this way,

Get upon the horſe's back, and ride till you have heated him thoroughly, and ſet him up for two or three hours, till he is cold: then turn him at the halter's end, or ride him again, and the leaſt grief that is in him may eaſily be diſcovered.

If you would know whether the grief proceeds from a hot or cold cauſe; obſerve, if it be from heat, he will halt moſt when he is hot; but if it be from a cold cauſe, he will halt leaſt when he is hot, and moſt rid or travelled; and if it be from cold, he will do it moſt at his firſt ſetting out, while he is cold.

Lameneſs in the Stiffle.

A horſe that has contracted a lameneſs in the ſtiffle generally treads on his toe, and cannot ſet his heel to the ground without great difficulty and pain. When you find this is the caſe, bathe it well with warm vinegar, and if a puffy ſwelling appears, foment it well with a woollen cloth, wrung out of hot vinegar, or a decoction of wormwood, bay-leaves and roſemary, adding half a pint of ſpirit of wine to a quart of the decoction. Let this operation be continued till the ſwelling diſperſes, and then bathe the part with the medicines above mentioned.

The tumour will ſometimes ſuppurate, but ſeldom; which ſoon perfects the cure. Should a rowel be neceſſary, any convenient part will do. The accident taken in time and properly treated, is by no means dangerous.

A Lameneſs in the Whirle-bone.

A lameneſs in this part and the hip is diſcovered by the horſe's dragging his leg after him, and dropping backward on his heel when he trots. If the muſcles of the hips only are injured, the lameneſs is eaſily cured; but if the ligaments of the joints are affected, the cure is often very difficult, tedious and uncertain. But whatever be the caſe, the method of cure is the ſame; which conſiſts in bathing the parts well with cooling medicines four or five times a day. If the injury conſiſts in a muſcular ſtrain only, this bathing will remove the complaint, and the horſe will be ſoon fit to do his buſineſs. But if the ligaments are injured, time and reſt alone can reſtore the proper tone of the injured parts; and therefore the beſt method will be to turn him to graſs.

Where the whirle-bone or hip is beat down from its ſocket, it will ſo remain; and yet perhaps the horſe may do conſiderable ſervice. The cure is generally bliſterings, firings, aſtringents, and reſt. *See* STRAINS.

Lameneſs in the Shoulder occaſioned by the Saddle.

Take brandy and ſpirit of turpentine, an equal quantity; beat them up together, and rub all the part that has been hurt by the ſaddle; and be ſure place your ſaddle farther backward when you ride him again. If you have no ſpirit of turpentine, take ſoap and brandy, and rub againſt the hair till you make a lather; repeat this three or four times ſucceſſively, as faſt as it dries in. For want of ſoap, you may uſe roach-alum, and, for want of brandy, urine. But, if you can get ſpirit of turpentine, the whites of eggs, brandy, and urine, the beſt way is to make a compoſition of them all, as directed for horſes hurt on the withers, and rub the horſe with it four or five times, which will effect a cure; you may uſe the ſame remedies in other places above-mentioned; but if the inflammation be great, the diſorder of long continuance, and one ſhoulder appears thicker than the other, you may introduce a rowel, which ſhould be made with tow, dipped in warm ointment of baſilicon; keep it in a fortnight, and, in the mean time, rub the ſhoulder with the following ointment.—Take ointments of marſh-mallows, poplar-buds, roſes, oil of bays, and honey, of each two ounces; melt them together,

ther, and ſtir the compoſition till it is cold; then uſe it once every day, and make more if this be not found ſufficient.

LAMPAS, LAMPERS, LAMPRASS, } is a ſort of ſwelling in the palate of a horſe's mouth, *i. e.* an inflammation in the roof of his mouth behind the nippers of his upper jaw, ſo called becauſe it is cured by burning with a lamp or hot iron.

It is cauſed by the ſuper-abounding of blood, and its reſorting to the firſt furrow of the mouth, near to the fore-teeth, which cauſes the ſaid furrow to ſwell as high as the gathers, which will hinder him from feeding, and cauſe him to let his meat fall half chewed out of his mouth again.

This is a natural infirmity with which all horſes are affected ſooner or later, and every common farrier can cure it.

The uſual method of cure is, to take it away with an inſtrument of iron made for that purpoſe, and heated red hot.

But in the operation great care muſt be taken, that in burning the fleſh you do not touch the bone; for if you do, the bone will ſcale, and ſeveral dangerous conſequences may follow.

LANDING-NET, IN ANGLING, a ſmall net extended upon a ring or hoop, and faſtened to the end of a long manageable pole, to aſſiſt in bringing fiſh to land.

LANDING-HOOK, IN ANGLING, is alſo neceſſary to the ſafe bringing large fiſh to ſhore, and are made with a ſcrew to faſten into a ſocket at the end of a pole, which when your fiſh is entangled, you put it into its mouth, and draw it to land. It is uſed chiefly for barbel, ſalmon, and other ſtrong fiſh.

LANNER, LANNERET, } OR TUNISIAN FALCON. The lanner is a hawk common in all countries, eſpecially in *France*, making her eyry on high trees in foreſts, or on high cliffs near the ſea-ſide.

She is leſs than the falcon-gentle, fair-plumed when at enter-mewer, and of ſhorter talons than any other.

LARGE; a horſe is ſaid to go large and wide when he gains or takes in more ground in going wider of the centre of the volt, and deſcribing a greater circumference.

LARK, a ſmall grey bird, that ſings in the morning when it is fair weather, and breeds in *May*, *July*, and *Auguſt*, when the young ones are able to quit their neſts in ten or twelve days: there are larks that fly in flocks, and theſe are the firſt birds that proclaim the approach of ſummer; and others, that keep more cloſe to the ground, as the ſky-lark, and wood-lark; both ſorts feed upon worms and ants: they are good food, when young and well fed: their fleſh is firm, brown, juicy, and eaſy of digeſtion. They make uſe of the heart and blood of a lark in the wind and ſtone-cholic: they are alſo accounted good for thoſe troubled with the gravel, and phlegm in the kidneys and bladder.

The way of taking larks is with nets, as they do ortolans, only they uſe a looking-glaſs for the firſt, known with us by the name of doring, or daring, and the callers are ſet upon the ground; whereas thoſe for ortolans, are placed upon ſmall wooden forks.

The looking glaſs made uſe of for this purpoſe, is made of ſeveral pieces, deſcribed Plate VIII. by the figures 1, 2, 3. Take a piece of wood A, C, an inch and half thick, and about nine inches long; it muſt be cut in ſuch a manner as to bend like a bow, as you ſee at A, B, C, and that it may have ſix faces according to its length.

The figure marked 1, 2, 3, 4, 5, 6, repreſents its form or cut; that at 6 undermoſt, muſt be an inch and a half broad; the faces ought ſo to diminiſh in thickneſs that the uppermoſt at 3 ſhould be but half an inch broad; the five corners, 1, 2, 3, 4, 5, muſt be let to receive as many pieces of looking-glaſs: in the middle of the lower face or corner of the wood marked 6, or B, in the firſt figure, a hole muſt be made to receive a little wooden peg ſix inches long, and a finger thick, a little pointed at the end, with a ſmall hole in the middle 1, there to faſten a cord.

Then take another piece of wood, ſix inches thick, and a foot long, ſharpened at the end Q, in order to fix it to the ground; make a mortiſe in it at M, O, about two inches high, and one inch and a half deep or broad; then bore or pierce a hole in the ſaid piece above at N, and continue the hole to the bottom of the notch M, O; into this hole you are to put the peg I, B, as repreſented in the third figure; when it is thus fixed, put a ſmall cord or line into the hole, and twiſting it about, your looking-glaſs is finiſhed. You muſt place it between the two nets, near the middle of them, and carry the line to the edge; ſo that pulling the line, you may make the looking glaſs play in and out, as children do a whirligig: keep it always turning, that the twinkling of the glaſs againſt the ſun may provoke the larks to come and view it. The right ſeaſon for this ſport begins in *September*, and eſpecially white froſty mornings.

Some catch larks with a clap-net.

Theſe birds, when it freezes hard, go in great flocks, and fly from one field to another, in queſt of their food; and they firſt fly low, near the ground, and alight where they ſee ſome others: now in order to take them, you muſt provide yourſelf with three ſticks, like to thoſe here repreſented at D, E, F, five or ſix feet long, very ſtraight, and ſtrong enough, with a notch at each end: at the end of which faſten on one ſide a ſtick as at E, a foot and a half in length, and on the other ſide a ſmall peg two or three inches long; one of theſe two poles or ſticks muſt have two ſticks tied to the end, oppoſite to one another; and there muſt be two other ſmall ſticks or pegs faſtened to the ſide of each ſtake, as you ſee deſcribed in the figure marked G, L, X, I, H. The ſtick I, X, muſt have two notches at its ends; one at X, there to place the net at the end I, where the two ſticks G, H, are faſtened, and to the ſide of each ſtick the pegs L, I; and when you intend to catch larks, three or four men muſt go from one field to another, which muſt be pretty even and not hilly, and pitch your nets; the three ſticks muſt be faſtened together at both

ends and in the middle, and place the ſtaff with the two pegs in the middle, that the net may the more eaſily and readily turn, being guided by this ſtaff, which will turn between the two ſticks, which you are to join in the ground: the two other ends muſt be oppoſite to one another, inſomuch that the four ſticks will be found to be fixed in a ſtraight line; and that the cord at the bottom of the net may be very ſtiff, get a ſtrong cord, 3, 5, twelve feet long, one end of which you are to faſten to the ſtick 3, and the other at that at 5, which you muſt pitch in the ground over-againſt thoſe at 4, 1, 6: in like manner faſten another cord, ten feet long to the end of the ſtick or ſtaff 7, with a peg 8 at the other end, which fix in the ground to the right of the others: pull it with all your ſtrength, that the upper cord or line may be as ſtiff as that below; you muſt have another cord, ten or twelve fathoms long, which put on a pully, and at one end faſten it to the ſtick 7, and let the others be tied to the ſtake behind the ſtand, which ſhould be made of ſtubble put round ſome ſprigs or ſmall branches of wood; the pully muſt be held at the place marked 10, fifteen feet diſtant from the net, with a cord tied to the ſtake 11, ſo that the ſpace between the pully and it's ſtake muſt be a foot and a half long, and the pully advanced to within two feet in the inſide of the bottom of the net, that it may turn more expeditiouſly.

The whole being ſet in order, let the perſon take his ſtand; and let the other perſons poſt themſelves in ſuch a manner, that the game 19, 20, may as it were, be between them three: I ſuppoſe one of them advances from the place marked A, the other from B, and third from C; but thoſe at A and B, muſt move more forward than the middlemoſt; and thus the larks ſeeing themſelves hemmed in, as it were on all ſides, and being obliged to fly ſtrait over the nets; to forward them the more therein, take a good long packthread, tie one end of it to the point of the ſmall peg 9, and a foot and a half, or two feet high, fixed upright in the ground, within two feet of the nets, and paſs it from thence over a ſmall forked ſtick, cut of the ſame height as the other ſtick or peg, and fix it likewiſe in the ground; the other end of the packthread muſt be conveyed to the ſtand. To this packthread, tie three or four birds, 15, 16, 17, 18, by the legs, with other packthreads, a foot and a half long; and when the perſon in the ſtand ſees the flock of larks fly, he muſt ſtir the packthread a little, and when thoſe at large perceive it, they will make directly thither, and then is his time to hold the cord in both his hands and draw it. Thoſe live birds tied to the packthreads, are termed cal'ls.

Country people, when they are not provided with nets, make uſe of ſprings, and ſuch like things, to take larks with.

When the weather is very cold, they obſerve thoſe places wherein they delight moſt, and to allure them the more thither, they ſtrew ſome oats in the place where they lay their ſprings, putting on ſeveral ridges of earth, near one another, packthreads of about four or five fathom, to which they faſten ſeveral ſprings or collars, made of horſe-hair, and thereby take great numbers of them.

LASK, LAX, OR LOOSENESS [in Horſes], is a diſtemper occaſioned by ſuch a weakneſs of the ſtomach, that their food paſſes through their guts without any alteration, which is a very dangerous caſe, and frequently fatal to them. It alſo ſometimes proceeds from the corruption of humours, either collected in the ſtomach, or thrown upon it from other parts.

The external cauſes, are eating too much provender, feeding upon mouldy or rotten hay, frozen graſs, rye, ſtraw, and other unwholeſome fodder, drinking very cold water, or immediately after the eating of a great quantity of oats, immoderate fatigue, exceſſive fatneſs, and ſometimes want of exerciſe.

If the excrements voided, boil and work upon the ground, it is a ſign that the diſtemper proceeds from over-heated choler, which is ſeldom dangerous, nay it is ſometimes profitable.

Again, if the ordure be white, it is a ſign of crude, cold humours: if watery, it betokens a great weakneſs in the ſtomach.

Laſks occaſioned by drinking cold water in ſummer, or melted ſnow, or by eating tender graſs, or other looſening things, are not to be regarded; but ſuch as proceed without any manifeſt outward cauſe, are not by any means to be neglected.

For the cure. If the excrements appear mixed with ſmall pieces or ſcrapings of the guts, you ought immediately to endeavour to prevent a deadly ulcer in thoſe parts, by giving him two or three times a day, a pint of cooling, ſoftening decoction, made as follows, *viz.* two ounces of barley, two ounces of marſh-mallow roots, and one ounce of the powder of ſal prunella, boiled in three quarts of water to one quart.

If the diſtemper is cauſed by phlegm, you may make uſe of cordial powders or pills, and other hot medicines, proper for ſtrengthening the ſtomach and relaxed parts.

Sometimes a laſk is a reaſonable effort of nature, to free itſelf from a troubleſome load of humours; but if it continues longer than three days, with loſs of appetite, it ought to be checked, for horſes are ſometimes foundered by its long continuance.

In this caſe, give the horſe for his food, bran moiſtened with claret, or barley parched and ground, and the beſt hay; but oats are in no wiſe proper.

A horſe is in the beſt order that only dungs once, or, at the moſt, twice in ten miles riding. Young and fiery horſes are often very lax; but this weakneſs generally leaves them by the time they are ſeven or eight years old, if they had been properly fed and but gently exerciſed. The fiery ſort ſometimes continues to purge after any extraordinary exerciſe, for their digeſtive powers are, for the moſt part, but weak; and alſo eat ſo ſpeedily, that they ſwallow their oats almoſt whole, and eject them in the ſame ſtate.

When a purging is habitual, or happens by accident, until the horſe ſeems to looſe ſtrength or fleſh, or both, it is not neceſſary to give him any aſtringent medicines, as the diſcharge may be only a ſalutary effort of nature to throw off what is either redundant or offenſive; a gentle

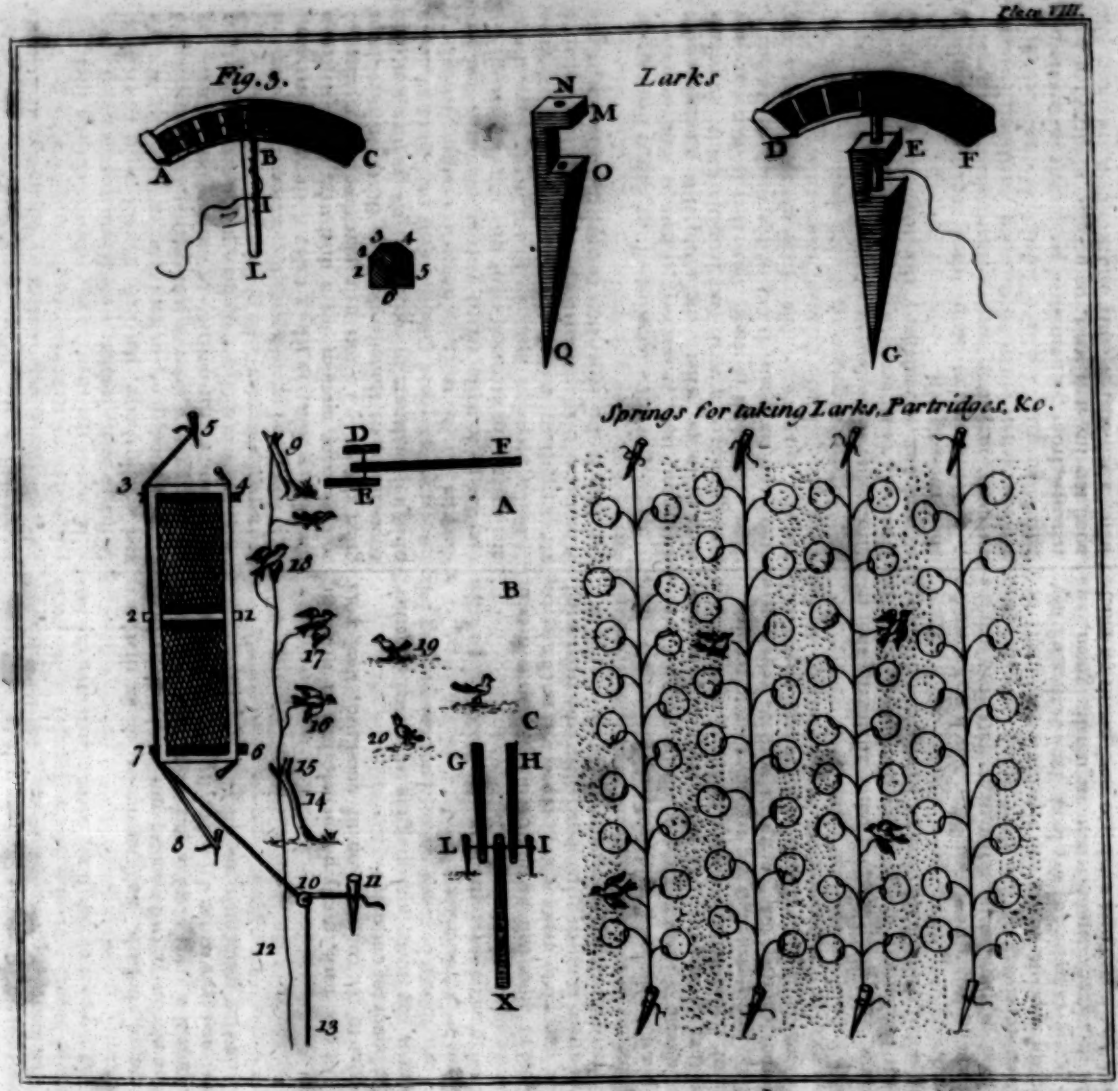
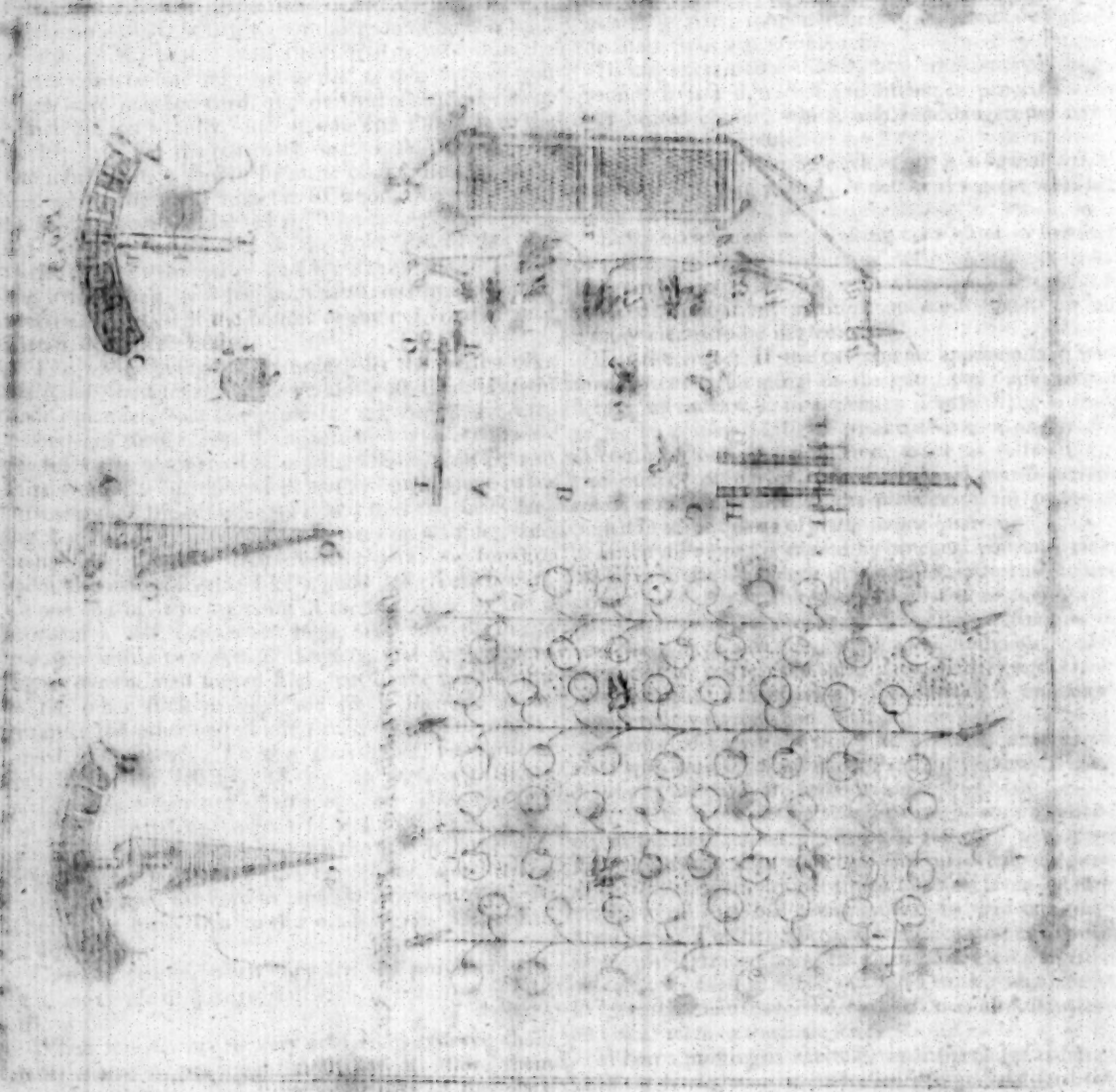


Fig. 3.
Larks
A
B
C
H
L
N
M
O
Q
D
E
F
G
Springs for taking Larks, Partridges, &c.
A
B
C
G
H
L
I
X



gentle purge may be given, and a few maſhes of bran; which, perhaps, by aſſiſting nature, may perfect a cure: but if the diſeaſe continues, and the horſe loſes fleſh, grows diſpirited and feeble, recourſe muſt be had to aſtringents: when the dung is like that of a cow, but the vigour of the horſe not impaired, he is ſaid to have a lax; but when the ſtrength and fleſh fails he is ſaid to have a ſcouring or purging.

When a ſcouring comes on at the latter end of any obſtinate and tedious diſeaſe, as low, putrid fevers, farcy, *&c.* they are uſually the forerunners of death, particularly if they are accompanied with a diſagreeable diſcharge at the ſame time from the noſe.

If the ſcouring proceeds from cold, and there is ſome degree of fever, according to the ſtrength of the horſe and the violence of the heat, bleed; then give the following:

Take of rhubarb, half an ounce, or ſix drachms; lenitive electuary, two ounces; mix, and make a ball.

Repeat this, every two or three days, until the fever abates: and betwixt the days of giving the rhubarb, give the following medicine once a-day.

Aſtringent Decoction.

Take oak bark, groſly powdered: boil it in a pint of water to the conſumption of one-third, then pour off the liquor for one doſe:

Except the fever and purging increaſed together, great care ſhould be taken not to check the purging leſt the fever be increaſed thereby.

If little or no fever attends, after bleeding, give the following ſolutive ball:

Take of aloes half an ounce; diapente, one ounce; treacle enough to make a ball: repeat this once a week, and if there is much griping and diſtention from wind, the reſtringent clyſter will be neceſſary.

It may be proper to remind the reader, that in theſe complaints, clyſters ſhould be ſmall in quantity; and if the diſeaſe is violent, they ſhould be repeated as often as they come away. If there is great pain, forty drops of liquid laudanum may be added to one of the clyſters, and repeated as the urgency thereof requires.

If the ſcouring ſtill continues without relief, give two drachms of cerated glaſs of antimony, mixed with one ounce of diacodium, or two ounces of cordial ball

Alum, Armenian bole, or other aſtringent and abſorbent medicines, are given to one ounce, once or twice a-day, but uſually one or two doſes will anſwer the end.

If the cauſe is a weak digeſtion, which is known by the food paſſing nearly in the ſame ſtate in which the ſtomach received it: the dung being very ſoft and pale; the appetite ſmall, and the horſe very lean: beſide gentle exerciſe and dry food, ſuch as the beſt hay, beans in larger quantities than are uſually given, and thoſe ſo moiſtened that the horſe need not drink much, give the following ſtomach-purge, and repeat it as occaſion may require.

Take of aloes, half an ounce; cream of tartar and myrrh, each half an ounce; treacle enough to make a ball: and on the days in which this purge is not operating, give the following

Stomach Drink.

Take of oak-bark, bruiſed, half a pound; Gentian root, ſliced, one pound; ginger, bruiſed, two ounces; infuſe them in a gallon of ale three or four days, and give half or three quarters of a pint every night and morning.

When a viſcid matter, obſtructing the mouths of the lacteals, gives riſe to this diſorder, a ſummer's graſs, or, which is ſtill better, the ſalt marſh, will effect a cure: where theſe cannot be obtained, the ſtomach purge before directed may be given once a week.

In any of the above caſes, where there is a diſcharge of ſharp, ſlimy matter, with ſevere griping, avoid oily and greaſy things, but give the following in clyſters, *viz.* Tripe-liquor, or very thin ſtarch; either of theſe may be given to three or four pints at a time, and liquid laudanum, to the quantity of forty or ſixty drops, may be added to one of the clyſters, to moderate the pains, and repeated as may ſeem needful.

When blood appears with the excrement, it is called the bloody flux: in which caſe, if there is great pain, and frequent motions for a diſcharge, there is alſo a great danger. In this caſe give frequent clyſters of tripe-broth, or thin ſtarch, with thirty or forty drops of liquid laudanum in each, until the pain is abated in ſome meaſure; and give the ſame medicines as above directed for the more obſtinate ſcourings, particularly the ball made with cerated glaſs of antimony, and cordial ball. For common drink give the following:

Boil a pound of burnt hartſhorn in ten pints of water to a gallon, at the latter end of the boiling, add to it four ounces of gum arabic, continually ſtirring until the gum is diſſolved, then remove the whole from the fire.

Mr. LAWRENCE ſpeaking of the *Lax or Scouring, or Diarrhæa*, ſays, as follows: There is a nervous diarrhæa in horſes, which, thoſe ſubject to it are generally young, and of a weak and irritable habit: it attends them only whilſt in work, when they ſeldom carry any fleſh; the complaint is out of the reach of medicine, but will ſometimes ſubſide ſpontaneouſly, after a few years uſe. Theſe delicate horſes require great care and dietetic attention to render them of much uſe. Strong nutriment, but in moderate quantities at a time. Good old dried beans in their oats, lucern or the hardeſt and beſt upland hay; rice maſhes, carrots, occaſional runs at graſs.

The ſcouring in horſes which requires and admits a remedy, may ariſe from various cauſes: from an acrimonious ichor in the ſtomach and inteſtines, from the fermentation and ſudden diſſolution of excrement long retained, from the ſolution of perſpirable matter thrown upon the lower bowels, on occaſion of drinking cold water when hot, or other cauſes of cold, from colliquation of the fatty ſubſtance of the body in being over heated by exceſſive labour, eſpecially when out of condition; or laſtly, diarrhæa may be a concomitant, or termination of diſeaſe.

As to the cure, it is a general rule never to exhibit aſtringents, or to attempt to ſtop a flux in the commencement, ſince the diſcharge may be merely an effort of nature to relieve herſelf from a morbid load. Gentle laxatives are rather indicated, and rhubarb from its cardiac and ſub-aſtringent quality, is the ſheet-anchor in this caſe. In common caſes, and indeed generally, aſtringents are by no means neceſſary, the effect and proper cauſe ceaſing together; but ſhould the purging continue until the healthy humours begin to be evacuated, and the animal become weak in conſequence, no time ought to be loſt in attempting to ſtay the flux. SOLLEYSEL fixes the period of waiting to three days, when he ſays the horſe will begin to loſe his appetite.

The Laxative and Sub-aſtringent Ball or Drink. Take one ounce fine Turkey-rhubarb, freſh powdered, lenitive electuary, two ounces; ginger finely powdered, two drachms; ball with ſifted oat-flour, or make a drink with gruel. To be given every other day, three times. The night after the operation of each doſe, the following drink may be given warm, if circumſtances appear to require it. Diaſcordium half an ounce to an ounce in either a tea made of mint, ſage, chamomile, or dried roſes; and ale, or gruel.

But ſhould the diſeaſe turn out too powerful for theſe remedies, and the ſcouring continue with griping pains, loſs of appetite, heaving at the flanks, and fever, an efficacious reſtringent courſe muſt be adapted, both in the medicines given at the mouth, and frequent clyſters.

Reſtringent Clyſter. Oak-bark four ounces; tormentil-root, two ounces; chamomile, two handfuls; burnt hartſhorn, three ounces; boil in three quarts forge water to two; ſtrain off, and add two ounces diaſcordium; four ounces of ſtarch or ground-rice; and half a drachm of opium. This quantity may ſerve once or twice according to circumſtances. Repeat once a day.

The *Drink*, to be exhibited daily. Take anniſeeds, carraways, and leſſer cardamoms, one ounce each; juniper berries, four ounces; bruiſe and put them into five pints mint water, adding diaſcordium, one ounce; boil to three pints; ſtrain, and add good old port half a pint, or ſtrong beer, ſweeten with treacle. In caſe of much pain and twitching in the bowels, two ſpoonfuls of laudanum may be added.

The diaſcordium, or ſpecies of ſcordium, is compoſed of ſuch a variety of cordial, aromatic, and aſtringent ingredients, that it ſaves trouble, and is of equal efficacy with the mode of preſcribing a number of various articles of ſimilar intent: it may be given in balls with the ſeeds, compounded with prepared chalk and ſyrup of poppies. Maſhes of malt and rice mixed, ſhould be allowed, water in ſmall quantities at a time, and mixed with rice gruel, or ſolution of gum arabic.

In caſe of a flux of blood with the excrement, BARTLET preſcribes the following drink. Diaſcordium and French-bole, one ounce each; ipecacuhan powdered, two drachms; opium half a drachm; diſſolve in a pint of warm ale, or port and water, and give it twice a day. Perhaps it would be better to begin with half the quantity of diaſcordium. In caſe of a lienteſy, or voiding chyle with the excrement, or the aliment unchanged, bark and bitters muſt be brought forward in aid of the other medicines. Or, The following infuſion from BRACKEN. Take zedoary and gentian half an ounce each; orange peel, and WINTER's bark, one ounce each; fine myrrh in powder, half an ounce; flowers of chamomile and leſſer centaury, each half a handful; mace and cloves two drachms each. Beat all groſsly together, and infuſe two days in a gallon of good port, or ſtrong beer, cold. Doſe, one pint every morning, milk-warm, adding two ounces ſyrup of dried roſes to every doſe.

LASSITUDE, OR WEARINESS IN HORSES, may proceed either from heat or cold; either when he has a retention of urine, has drank after being heated, or has been put to his utmoſt at once after long reſt; the remedy for which is reſt. You may alſo give him hog's ſuet mixed with wine.

If the laſſitude proceeds from cold, or be in cold weather, make uſe of fomentations, and anoint his head and back-bone with ointment, in hot water or warm wine.

If he has retained his urine, uſe the ſame medicines, or rub his head and reins with hot oil, mixed with hog's greaſe or hog's blood, and give it him to drink with wine.

LAUND, } [in a park], plain, untilled ground.
LAWN, }

LAWING OF DOGS, a cutting out the balls, or the three claws of his fore-feet. *See To* EXPEDIATE.

LAX, *ſee* LASK.

LEAD, a horſe going upon a ſtraight line, always leads and cuts the way with his right foot.

The Duke of *Newcaſtle* was the firſt that made uſe of the term, and indeed it is very expreſſive. *See* GALLOP UNITED *and* GALLOP FALSE.

LEAD FOR ANGLING. To lead your line, do it with a ſhot cloven, and then cloſed exactly on it, not above two on a line, and about two inches diſtant from each other, and the loweſt ſeven or eight inches from the hook; but for the running line, either in clear or muddy water, nine or ten inches, and in a ſandy bottom full of wood, ſhape your lead in the diamond faſhion, or that of a barley-corn or oval, and bring the ends very cloſe and ſmooth to the line; but make it black, or the brightneſs will ſcare the fiſh. *See* ANGLING.

LEADING OF LINES. The ſmall round pellet or lead-ſhot is beſt, eſpecially for ſtoney rivers, and the running line.

LEAM, } [among Hunters] a line to hold a dog in,
LIAM, } otherwiſe called a leaſh.

LEAP, an air of a ſtep, and a leg. *See* STEP.

LEAPING-HORSE, one that works in the high manege, a horſe that makes his leaps in order, with obedience, between two pillars, upon a ſtraight line, in volts, caprioles, balotades, or croupades.

Uſe, which in moſt things has a ſovereign ſway, excludes a gallop *a terra a terra*, and corvets, from the number of leaps, becauſe the horſe does not riſe ſo very high in theſe.

Each leap of a leaping-horſe ought to gain or make not above a foot and a half of ground forwards.

LEASH, } a ſmall, long thong of leather, by which
LEASE, } a falconer holds his hawk, twiſting it about his fingers. Alſo a line to hold in a hunting-dog.

LEASH OF GREYHOUNDS, FOXES, HARES, *&c.* or three of any kind of game; the term being now reſtrained to that number, which was formerly double, or perhaps indefinite.

LEATHER-MOUTHED. Leather mouthed fiſh are ſuch as have their teeth in their throats; as the chub, barbel, gudgeon, carp, *&c.*

LEEK HEADS, a kind of wart, that come about a horſe's paſterns or paſtern-joints; they are higher than the ſkin, about half the thickneſs of one's fingers, throw out filthy ſtinking ſtuff, ſpoil the leg, and are very difficult to cure.

Thoſe that ariſe in the paſterns are laid beneath the long hair of the fetlocks, and are ſome of them ſo extremely malignant, that they make the hair fall off all round them, and they themſelves grow up like walnuts.

There are others again more flat, and not ſo much raiſed above the ſkin, yet are more dangerous than thoſe that are the biggeſt and moſt elevated.

Theſe leek-heads are eaſily diſcovered, being many mattery warts that touch one another, and without hair: they ſend forth much matter for the moſt part, but may be dried up for a time.

LEDGER-BAIT, a bait that is fixed or made to reſt in one place, when you ſhall be abſent. It is beſt to be a living one, a fiſh or frog. Of fiſh, a roach or dace is beſt. Cut off the fin on the back, and make an inciſion with a ſharp knife, between the head and the fin on the back, and put the arming-wire of your hook into it, and carrying it along his back, unto the tail, betwixt the ſkin and the body, draw out your arming at another ſcar near the tail, and then tie him about it with thread.

LEGS OF THE HORSEMAN, the action of the horſeman's legs given ſeaſonably, and with judgment, is an aid that conſiſts with approaching more or leſs with the calf to the flank of the horſe, and in bearing it more or leſs off, as there is occaſion.

This aid a horſeman ought to give very gently, in order to animate a horſe, for in ſtretching the ham, he makes the horſe dread the ſpur, and this fear has as much effect as the ſpur itſelf.

LEGS OF A HORSE ſhould have a due proportion of their length to that of the body: the fore-legs are ſubject to many infirmities, as being the parts that ſuffer moſt, and are alſo commonly the ſmalleſt and weakeſt.

There are ſeveral marks of bad legs, *viz.* if they appear altogether ſtraight, or as if they were all of one piece.

A horſe is ſaid to be ſtraight upon his members, when from the knee to the fore part of the coronet, the knees, ſhank and coronet, deſcend in a ſtraight or plumb-line, and that the paſtern-joint appears more, or at leaſt as much advanced as the reſt of the leg; ſuch legs are like thoſe of a goat, making a horſe apt to ſtumble and fall; ſo that in time the paſtern is thruſt quite forward, out of it's place, and the horſe becomes lame.

Horſes which are ſtraight upon their members, are quite contrary to thoſe that are long jointed; that is, whoſe paſterns are ſo long and flexible, that the horſe in walking almoſt touches the ground with them.

This is a greater imperfection than the former, becauſe ſome remedy may be applied to them, but there can be none for this; beſides, it is a ſign of little or no ſtrength, and ſuch horſes are not fit for any fatigue or toil.

Some horſes, though they be long jointed, yet do not bend their paſterns in walking, being ſomewhat long; yet if they are not too flexible, ſuch a horſe will gallop and run with a great deal more eaſe to his rider, than if he were ſhort jointed.

Theſe are the only horſes for perſons of quality, who ſeek after their own eaſe and pleaſure; and indeed thoſe horſes may be compared to coaches with ſprings, which render them infinitely more eaſy than thoſe without them.

Legs in a ſtraight line is an imperfection in a horſe, where his legs from the knee to the coronet appear in a ſtraight line as the horſe ſtands with them in their natural poſition.

The remedy is ſhoeing; in doing which the heels muſt be taken down almoſt to the quick, without hollowing the quarters; and if, when this has been done, the leg does not fall back enough, but that the horſe ſtill carries his paſtern-joint too far forward, then the ſhoe muſt be ſo made as to go beyond or exceed the toe, about the breadth of half a finger; and alſo it muſt be thicker in that than in any other part; and in the mean time, anoint the back ſinews of his legs with the ointment of *Montpellier*; and theſe things will reduce them to their proper poſition.

Of the four legs, the two before have ſeveral parts, each of which has a peculiar name; ſo that by the name of fore-leg, we commonly underſtand that part of the fore-quarters that extends from the hough to the paſtern-joint, and call it the ſhank. The part that correſponds with it in the hinder quarters we call the inſtep.

But in common diſcourſe, we confound the fore and hind quarters, and without any diſtinction, ſay, the fore leg of a horſe.

A horſe is ſaid to want the fifth leg; when he is tired, and bearing upon the bridle lies heavy on the horſeman's hand.

There are various diſeaſes that ariſe from the greaſe, ſuch as the ſcratches, rat-tails, crown-ſcab, warts, mules; theſe, are generally concomitants, or different appearances of the greaſe, and conſequently demand the ſame methods of prevention and cure. Scratches or crepanches, are long ſcabby chaps, or cleſts, either dry, or with a ſmall fetid diſcharge, ſituated upon the hinder-legs, between the fetlock and the hock. Rat-tails, ſo denominated from their appearance, are excreſcences of the hair and integument, upon the paſtern and ſhank, either moiſt or dry; the crown-ſcab is a defluxion of the greaſe upon the coronary ring. Warts and

mules

mules breed upon the heels; the latter ſo named from an *Italian* word, is, a kind of kibe, or chilblain.

Scratches and rat-tails are often occaſioned by neglect, and the horſe ſtanding in hot dung and filth. Begin the cure by getting off all the ſcurf, and making them raw, or if neceſſary, laying them open, or paring off with a knife. Emollient and ſuppling applications may be wanted, of which variety has been preſcribed, as alſo of thoſe of different intent. The cure of a crown-ſcab is ſometimes a matter of conſiderable difficulty, for in a bad caſe, the milder applications have ſmall effect, and the more powerful, as oil of vitriol, and ſuch as are in common uſe, injure the coronet, and endanger the loſs of hoof. Soak the parts once or twice a day, with the tobacco infuſion, and the tobacco itſelf may be bound on as a charge. Or, a charge of marſh-mallows and yellow baſilicon, ſpread on tow. Touch with ægyptiacum and brandy; camphorated ſpirits, and as much ſal ammoniac as it will diſſolve; or the ſpirit of nitre and ſublimate as before. Purges, &c.

Warts. Extirpate them with the knife, and apply a ſtyptic of vitriolic acid. When the bleeding is perfectly ſtopped, touch the roots either with the actual or potential cautery. If the wound be large and ſore after the eſcar is ſluffed off, dreſs with the Burgundy-pitch plaſter, if otherwiſe, with the diachylon only.

Mallenders and Sallenders. Foul and gourdy-legged horſes are moſt ſubject to them, and in ſuch, it is not always ſafe to repel the diſcharge without purging or alterative medicines. Clip the hair cloſe, and waſh often with a ſtrong lather of ſoap and water warm. Stale urine. Dreſs with ſtrong mercurial unction, ſpread on tow. Or, frequent dreſſings with Burgundy-pitch, common frankincenſe, tar, diachylon, and quickſilver, well rubbed down with Venice-turpentine.

The broken Knee. Waſh the wound clean from ſmall ſpecks of gravel or earth, with a linen rag and warm ſoap ſuds; wipe dry, and apply brandy. Stale chamberlye and ſalt, frequently applied. Friar's balſam has healed broken knees very ſpeedily. Or, bind upon the parts tow, dipped in tincture of myrrh and brandy. It may be neceſſary to poultice, and afterwards heal with wound-ointment. The knees being ſwelled, bathe with brandy and vinegar warm. It is ſaid that pigeon's dung, honey, and gooſe-greaſe mixed, will cauſe the hair to grow ſpeedily; and perhaps a piece of ſheet-lead, bandaged upon the part, might occaſion the hair to grow ſmooth and even with the old. *See* FEET OF A HORSE.

LEGS, SWELLING OF, IN HORSES. The cauſe of the ſwelling in the legs comes through cold humours ſettling therein, or over-much riding in foul or dirty ways, over-heats, or over-ſtrains, or by molten greaſe falling down into the legs.

Let blood in the moſt convenient veins, as near as may be to the ſwelling, to take away the corrupt blood. Then,

Take the lees of white-wine, or rheniſh-wine, half a pint; chamomile, half a handful; cummin-ſeeds, half an ounce; wheat-flour, two handfuls; boil them all together, adding in the boiling half a pint of verjuice, and ſo lay them hot as a poultice to the place grieved, renewing it till you find it draws the ſwelling to a head: which being done, take ſhoemakers's wax, an ounce; the like quantity of virgins wax; half an ounce of bole ammoniac, and half a pint of olive-oil; the yolks of two eggs, and a quartern of honey: beat theſe well together over a gentle fire, till you perceive them well incorporated into the thickneſs of a ſalve; then, ſpreading part of it upon ſheep's leather, apply it plaſter-wiſe, till the corruption, by often renewing, be drawn away: then waſh the place with balm-water, and heal it up with hog's greaſe and honey incorporated over a gentle fire.

LENGTH. To paſſage a horſe upon his own length, is to make him go round in two treads, at a walk or trot, upon a ſpot of ground ſo narrow, that the horſe's haunches being in the centre of the volt, his own length is about the ſemi-diameter of the volt, the horſe ſtill working behind the two heels, without putting his croup, or going at laſt, faſter or ſlower than at firſt.

LEPROSY IN A HORSE. This grievance, or dangerous malady, befals a horſe by extraordinary riding, and ſuffering him to cool, and conſequently ſurfeit; or from the rankneſs of blood, which produces evil humours, which, not being timely let out, force their way in botches and dry ſorrances, which upon dreſſing muſt be rubbed off, to prepare the way for the ointment.

Take realgar, otherwiſe called arſenic, and hog's lard well tried; incorporate them into an ointment over a gentle fire; and, having drawn the horſe's head up ſtraight to the rack, anoint the place with a feather, and ſuffer it for the ſpace of two hours to ſoak in; and after that boil the roots of burdock in chamberlye, and waſh with it the ointment clean away: which done, give the horſe meat of the beſt to hearten and encourage him to endurance; and ſo proceed to do every other day for ſix days ſucceſſively.

LESSES (with Hunters) the dung of a wild boar, bear, or wolf.

LESSON, is a word uſed for the inſtruction of both the horſe and the ſcholar.

LESSONS FOR A HORSE. When your horſe will receive you to and from his back gently, trot forward willingly, and ſtand ſtill obediently, then for what purpoſe ſoever he is intended, theſe general leſſons may ſerve him.

With a large ring, that is at leaſt fifty paces in circumference, labour him in ſome gravelly and ſandy place, where his footſteps are diſcernible, and having trod it about three or four times on the right hand, reſt and cheriſh: afterwards changing the hand, do as much on the left, then reſt and cheriſh; change again, and do as much on the right; ever obſerving, upon every ſtop, to make him retire and go back a ſtep or two: continue this till he trot his ring on what hand you pleaſe, changing within it in form of the capital *Roman* S; and does it readily and willingly: then teach him to gallop them as he trotted them, and that alſo with true foot, lofty carriage, and brave rein, ever obſerving when he gallops to the

the right hand, to lead with his left fore foot; and when he gallops to the left-hand, to lead with the right fore-foot.

Stopping; for when you come to a place of ſtop, or would ſtop, by a ſudden drawing in of the bridle-hand, ſomewhat hard and ſharp, make him ſtop cloſe, firm, and ſtraight, in an even line; and if he err in any thing, put him to it again, and leave him not till you have made him underſtand his error and amend it.

Advancing; with which if you accompany the aforementioned ſtop a little from the ground it will be better, and may be done by laying the calves of your legs to his ſides, and ſhaking the rod over him as he ſtops: and if he does not underſtand it at firſt, yet by continuance and labouring him therein, he will ſoon attain to it, eſpecially if you do not forget to cheriſh him, when he ſhews the leaſt token of apprehending you.

Retiring is another leſſon, after ſtopping and advancing; and this motion muſt be both cheriſhed and increaſed, making it ſo familiar to him, that none may be more perfect; neither is he to retire in a confuſed manner, but with a brave rein, a conſtant head, and a direct line; nor ſhould he draw or ſweep his legs one after another, but take them clean, nimbly, and eaſily, as when he trots forward.

LEVERET. A young hare, ſo called in the firſt year of her age.

LEVINER. } A hound of a very ſingular ſcent,
LYEMER. } and incomparable ſwiftneſs: this is as it were a middle kind, betwixt a harrier and a greyhound, as well for his kind, as the form or ſhape of his body. This dog, for the excellency of his condition, viz. his ſmelling and ſwift running, followeth the game with more eagerneſs, and taketh the prey with great quickneſs.

LIBERTY OF THE TONGUE, is a void ſpace left in the middle of a bitt, to give place to the tongue of a horſe, made by the bitt's arching in the middle, and riſing towards the roof of the mouth.

The various forms of the liberty give name to the bitt.

Hence we ſay a ſcatch-mouth, a Pignatelle, *i. e.* with the liberty of *Pignatelle*'s faſhion; a cannon-mouth, with the liberty like a pigeon's neck.

LICE, IN CATTLE, to deſtroy.

Anoint with oil of turpentine or linſeed oil, and flour of brimſtone. And,

To kill worms and maggots. Get black ſoap, or for want of it, other ſoap; mix it with tar or tar-water, and anoint the place: this will not only kill the preſent, but even prevent the future from breeding in ſore places.

LIGHT HORSE, is a ſwift nimble runner.

We likewiſe call a horſe light that is well made, though he is neither ſwift nor active; for in this laſt expreſſion we conſider only the ſhape and make of a horſe, without regard to his qualities.

LIGHT UPON THE HAND. A horſe is ſaid to be ſuch, that has a good tractable mouth, and does not reſt too heavy upon the bitt.

Your horſes that have a thin fore hand, *i. e.* ſmall ſhoulders, are commonly light upon the hand.

We call a coach-horſe light, when he ſtirs nimbly, and dreads the whip; or, when he has a light trot.

All your light coach-horſes are good, and a hard heavy coach-horſe, that takes the laſhing eaſily, is good for nothing. LIGHT HAND. *See* HAND.

LIGHTEN. To lighten a horſe, to make a horſe light in the fore-hand, is to make him free and lighter in the fore-hand than behind.

If you would make your horſe light, you ought to find him always diſpoſed to a gallop when you put him to a trot, and after galloping ſome time, put him back to a trot again.

LIGHT-BELLIED HORSE, is one that commonly has flat, narrow, and contracted ſides, which makes the flank turn up like that of a greyhound.

Such a horſe has but a little flank, he is light-bellied, he travels and feeds but little, becauſe he has too much mettle.

LIGS IN A HORSE, are little puſhes, wheals or bladders, within the lips of a horſe, and are cured by bruiſing wormwood and ſkirwort in a mortar, with a little honey, to anoint the ſores with.

LIME-BUSH. A device to catch birds with; which is performed in this manner. Cut down an arm or bough of any buſhy tree, whoſe twigs are thick and long, yet ſmooth and ſtraight, then neatly cut off all the ſuperfluous twigs, and having your ſtrong birdlime well mixed, wrought together with capon's or gooſe-greaſe, warm and fit the work by daubing over of an equal thickneſs the twigs or branches that are left within four fingers of the bottom, but the body and arms muſt be free; place your buſh, thus prepared, on ſome quickſet or dead hedge for a ſpring ſeaſon; near a town's-end, a farm-yard, &c. in ſummer and harveſt, in groves, in hedges, or corn fields, orchards, flax, halm, or rape-land; and in winter, about barns, ſtables, corn-fields, and ſtacks of corn, where chaff and grain are ſcattered up and down.

The buſh being ſo ſet, place yourſelf in ſome convenient ſtation, where you may lie concealed, and near the buſh you are to have about half a dozen ſtales fixed, whoſe chirping and ſinging will entice others thereto. You ſhould alſo be provided with bird-calls of ſeveral ſorts. The buſh may alſo be uſed in taking field-fares, by faſtening it upon a tree, and having fixed ſome ſtales, beat the adjacent grounds to raiſe them, and when they eſpy the ſtales, they will light on the tree and buſh for company.

But for taking pheaſants with theſe lime-buſhes and rods, take your call and uſe it, keep yourſelf ſecret, and in one place, till you have enticed them about you, as they are taken by the rods on the ground, ſo you will ſurprize them with your buſhes; for being ſcared from below, they will take perch and ſee what becomes of their fellows, and when one is limed, by her ſtriving and ſtruggling, and the reſt coming and gazing to ſee what is befallen her, they will be in danger of being likewiſe limed. It is requiſite to number the lime-rods, for when

you have gathered up all the pheaſants that are caught, and find rods wanting, you may conclude that ſome pheaſants are run with them into the buſhes; you muſt hunt them out with a good ſpaniel.

LIME-TWIGS. Small lime-twigs, about three or four inches long, may be laid in places where the birds haunt, or ſtuck on the tops of hemp-cocks, or wheat-ſheaves; or little boughs may be ſtuck among peas, which the ſmall-birds will light upon; by which means the number of theſe deſtroyers of corn, grain, ſeed, *&c.* may be leſſened.

A ſtale of one or two living night-bats is proper to draw them to the ſnare, but an owl is much better. As for field-fares, thruſhes, and the like, which in winter-time uſually fly in great flocks, they are eaſily catched, by liming two or three large boughs, to be fixed on the top of ſome tall tree, placing in them two or three dried ſtales of that kind; the adjacent fields where thoſe birds feed may be beaten, and they will in great flights take to the tree where the ſtales are.

To take great fowl with lime-twigs: get plenty of rods, or long, ſmall, and ſtraight grown twigs, which are light, and apt to ply to and fro.

Lime the upper part of theſe twigs, holding the bird-lime before the fire, the eaſier to beſmear them.

Having a knowledge of the place where theſe fowl reſort morning and evening, obſerve (before day for the morning-flight, and before ſun-ſet for the evening-flight) to plant your lime-twigs at the haunt of theſe fowl, ſtaking down one of the ſame alive, which you have caught before for that purpoſe.

Prick down your twigs in rows, a foot diſtant one from another, round about the ſtale, allowing him room and liberty to flutter to and fro, covering all the place of their haunt, ſo that there ſhall be no room left, but they muſt of neceſſity pitch on the lime-twigs.

Let the twigs be ſtuck in the ground ſloping, with their tops bending into the wind, about a foot, or ſomething more, above the ground. It will likewiſe be beſt to prick the rods ſo as to croſs one another, that is, one point into the wind, and another againſt the wind, by which means the fowls will be entangled which way ſoever they go.

Alſo place a ſtale at ſome diſtance from the lime-twigs, and faſten ſmall ſtrings to it, which, upon the ſight of any fowl, you are to pull, to make the ſtale flutter, which will allure them down again.

When you ſee any taken, you are not to run inſtantly and take them up, if at the ſame time you ſee any fowl in the air, for their fluttering will induce others to ſwoop in among them.

It will alſo be uſeful to have with you a well-taught ſpaniel, for the retaking of ſuch fowl, (as it is common) which will flutter away with the lime-twigs about them.

If you have a mind to uſe the twigs for the taking of ſmaller wild fowl, and ſuch as frequent the water only, then you muſt fit them in length to the depth of the water, and your rods muſt be limed with the ſtrong water bird-lime, ſuch as will not be injured by the wet.

Stick theſe rods in the water, after the ſame manner as thoſe upon land, that part of the rods that are limed above the water; and alſo ſtake down a live ſtale, as a mallard, widgeon, or teal, here and there amongſt the rods. This may be done in any ſhallow plaſh or fen.

It will not be neceſſary for you to attend continually on your rods, but only to come three times a day to ſee what are taken, *viz.* early in the morning, at noon, and late in the evening; but bring your water-dog with you, for if you find that any of your rods are miſſing, you may conclude that ſome fowls being faſtened to them, are crept into ſome hole, buſh, or hedge, by the river-ſide, and the dog will be very neceſſary to find them out.

Do not beat one haunt too much, but when you find their numbers fail, find out another haunt; and in about three weeks time the firſt will be as good as before.

LIMER, } The ſame as blood-hound, a great
LIMEHOUND, } dog to hunt the wild boar.

LINES FOR FISHING. To make them after the beſt manner, let the hair be round, and twiſt it even, for that ſtrengthens the line; and ſee that it be, as near as you can, of an equal bigneſs: lay them in water for a quarter of an hour, by which means you will find which of the hairs ſhrinks, and then twiſt them over again.

Some mix ſilk in the twiſting, others again diſapprove of this, but approve of a line made of all ſilk; alſo of a line made all of the ſmalleſt luteſtring, as very near as good, but it will ſoon rot in the water.

When you have prepared as many links as will ſuffice to make your line long enough, you muſt then tie them together in a water knot, *Dutch* knot, or weaver's knot. Then cut off the ſhort ends about the breadth of a ſtraw from the knot, and thus the line will be even and fit for fiſhing. You may make the top of your line, and indeed all of it, except two yards next the hook, of a coarſer hair. Always let the top of your line, whether in muddy or clear waters, be made of white hair, becauſe the motion of the line, when the fiſh bite, will be far more diſcernible. Never ſtrain your hairs before they are made into a line, for then they will ſhrink when uſed.

To make the line handſome, and to twiſt the hair even and neat, gives it ſtrength: for if one hair is long, and another ſhort, the ſhort one, receiving no ſtrength from the long one, conſequently breaks; and then the other, as too weak, breaks alſo. Therefore twiſt them ſlowly, and in twiſting, keep them from entangling, which hinders their right plaiting or bedding together; twiſt them neither too hard nor too ſlack, but even, ſo as they may twine one with another, and no more. When you have tied your lengths together with the water-knot, cut off the ſhort ends about the breadth of a ſtraw from the knot, that it may not undo in the uſing.

Do not arm, fix, or whip hooks to any line, either for ground or fly angling, that conſiſts of more than three or four links, at the moſt, the top of the uppermoſt link having a ſmall loop, or water-nooſe, you may fix it to any line, and as eaſily remove it; there being another water-nooſe at the bottom of your line.

To angle for trouts, graylings, and ſalmon ſmelts, with

with the dub-fly; let the two firſt links next the hook be but of one hair a piece: but the hair muſt be ſtrong, and of the thick ends only, and choſen for the purpoſe. The next two links of two hairs, and next to theſe one of three hairs; at the top of which have a water-nooſe, or loop to put your line to; which lowermoſt link conſiſts of three hairs, and has another water-nooſe at bottom, or hook-link to fix your fly to. Then let two of the next links of your line be four hairs, and ſo proceed, by increaſing one or two hairs till you come to fix or ſeven hairs at the top. Let the ſingle hairs, or three or four of the next links be of a white or light colour.

The artificial fly line ſhould be very ſtrong at the top; by this method any young angler will caſt a fly well, and may quickly become an accurate artiſt; and if he chances to faſten his hook, and cannot come to looſen it, he will not loſe above one link, or two at moſt, though he pull to break it; becauſe the line is ſo ſtrong at the upper end. You may angle with ſtronger lines at the caſt-fly than at ground, in a clear water, for the trout. For in a clear water at ground for trouts, graylings, and ſalmon ſmelts, never uſe a line made otherwiſe than with a ſingle hair at hook, and ſo on as above directed; only never have above four hairs in any one link of the line. At the bottom of every line have a ſmall water-nooſe, or loop, that you may hang on a hook of any ſize, whipt to a line conſiſting of two or three hooks.

In a muddy water, or one diſcoloured by rain, the running-line ſhould be half the length of the rod more or leſs, and the two loweſt links of three hairs a piece. Next ſhould be a link of four hairs, with a loop or water-nooſe to faſten it to another of the ſame number, having likewiſe a water-nooſe at its bottom. Then proceed with links of five or ſix hairs a-piece, to the end. The three lowermoſt links or gildards, ſhould be of a ſorrel, brown, or cheſnut colour. Your cane or reed-rod muſt have a top, neither too ſtiff, nor too ſlender; the rod to be about three yards and a half long, and the top about one yard and a half, or two yards, of hazle, either in one or two pieces, or five or ſix inches of whalebone, made round, ſmooth, and taper. All this will make the rod five yards and a half long, or five yards at leaſt.

The line ſhould have more lead in a great, troubleſome, rough river, than in one that is ſmaller, and more quiet; as near as may be, always juſt ſo much as will ſink the bait to the bottom, and permit its motion, without any violent jogging on the ground. Carry the top of your rod even with your hand, beginning at the head of the ſtream, and letting the bait run downwards as far as the rod and line will permit, the leaſt dragging and rolling on the ground. No more of the line muſt be in the water than will permit the lead to touch the bottom. For you are to keep the line as ſtraight as poſſible, yet ſo as not to raiſe the lead from the bottom. When you have a bite, you may perceive it by your hand, and the point of your rod and line; then ſtrike gently, and ſtraight upwards; firſt allowing the fiſh, by a little ſlackening the line, a ſmall time to take in the bait. In a clear water, indeed, it has been found beſt to ſtrike at the firſt biting of the fiſh, when you angle for trout, grayling, or ſalmon ſmelt.

The beſt colour for lines, are the ſorrel, white, and grey; the two laſt for clear waters, and the firſt for muddy rivers; nor is the pale watery green to be ſlighted, which colour you may make after the following manner:

Take a pint of ſtrong ale, half a pound of ſoot, a ſmall quantity of the juice of walnut-leaves, and the like quantity of allum; boil all theſe together in a pipkin for half an hour, then take it off, ſet it by till it is cold and then put in the hair.

Or thus; boil a large handful of marigold-flowers in a quart of allum-water, till a yellow ſcum ariſes, then put in half a pound of green copperas, and a like quantity of verdigreaſe reduced to a fine powder; put theſe with the hair into the allum water, and let it lie ten hours or more, then take out the hair and let it dry. *See* ANGLING.

LINNET. A ſinging bird, ſo called becauſe ſhe feeds upon linſeed, making her neſt in black-thorn, white-thorn, and fir-buſhes, but upon heaths more than any where elſe

They build them with very ſmall roots, and other ſort of ſtuff like feathers, thoſe that build in the heath; but ſuch as do it in hedges, build the outſides of their neſts with moſs, and line it within according as the place will afford.

Some of theſe birds will have young ones four times a year, eſpecially if they be taken from them before they fly out of their neſts; and the better the bird is in mettle, the ſooner ſhe breeds in the ſpring: the young may be taken at four days old, if you intend they ſhall learn to whiſtle or hear any other bird ſing, for they being then ſo young, have not the old bird's ſong, and ſo are more apt to take any thing, than if you ſuffer them to be in the neſt till they be almoſt fledged; but when they are taken out ſo young, care muſt be had to keep them warm, and to feed them but a little at a time; their meat muſt be rape-ſeed ſoaked and bruiſed, to which put full as much white bread as ſeed; freſh alſo ſhould be had every day, for if it be ſour, it immediately makes them ſcour and die: neither muſt their meat be given them too dry, for in ſuch a caſe it will make them vent-burnt, and that is as bad as if they had been ſcoured. If you intend to whiſtle them, let it be done when you feed them, for they will learn very much before they can crack hard ſeeds; and hang them under any bird, whoſe ſong you have a mind he ſhould learn. Theſe birds, when young, are exceeding apt for any ſong or tone, nay, they may be even taught to ſpeak. The cocks may be known from the hens, firſt, by the colour of the back; for, if it be of the dark coloured linnets, the cocks are much browner than the hens on the back, and on the pinion of the wing: and ſo of the white-thorn linnets, the hens are much lighter than the cocks: but this muſt be noted; that a hen linnet of the dark colour, is darker than the cocks of the light-coloured linnets. But the ſecond, and ſureſt way of all to know him is, by the white in his wing.

Whereas this bird is ſometimes troubled with melancholy, when you find the end of his rump ſwelled, it muſt be pricked with a needle, and the corruption let out, and the ſame ſqueezed very well, with the point of a needle, then anoint him with an ointment of freſh butter and capon's greaſe, and for two or three days feed him with lettuce, beet-ſeeds, and leaves; you alſo may give him the ſeeds of melons chopped in pieces, which he will eat very greedily, but when you find him mend, take the melon-ſeeds away, give him his old diet again, and put into his water two or three blades of ſaffron, and white ſugar-candy, for a week or more, till you perceive him perfectly well.

The next diſeaſe he is infeſted with, is a ſcouring; the firſt ſort thereof, which is very thin, and with a black or white ſubſtance in the middle, is not very injurious, nor dangerous; but the other, which is between black and white, not ſo thin as the former, but very clammy and ſticking, is never good in a bird. For his recovery, give him at firſt, melon-ſeed ſhred with lettuce, and beet-ſeed bruiſed, and in his water, ſome liquorice and white ſugar-candy, with a little flour of oatmeal therein; and diligence muſt be uſed to obſerve him at firſt when he is ſick, that ſo he may have a ſtomach to eat, for in two or three days it will be quite gone, and then it is difficult to recover him.

The worſt of all his diſeaſes is, the white clammy ſcouring, which is mortal if it be not timely looked after; this proceeds from bad ſeeds, and many times from want of water; and the badneſs of the ſeeds may ariſe from damage taken at ſea, by over-flowing, or laying in the wet too long before they have been houſed, if the bird be not helped at the firſt appearance, it takes away his ſtomach, and makes him droop and fall from his meat; therefore to cure him, give him flax-ſeed, taking away all other ſeeds, then ſome plantain-ſeed, if it be green, or elſe it will do him no good; but if ſuch cannot be got, give him ſome of the leaves ſhred very ſmall, and ſome oatmeal bruiſed, with a few crumbs of bread; in his water give him ſome white ſugar-candy and liquorice, with a blade or two of ſaffron.

Another diſtemper is the phthiſick, and may eaſily be perceived, by ſeeing the bird pant and heave his belly faſt, and ſit melancholy, with his feathers ſtanding big and ſtaring; it is likewiſe diſcovered by his belly, when it ſhews itſelf more puffed than ordinary, full of reddiſh veins, and his breaſt very lean and ſharp; he will now alſo ſplit and caſt his ſeed about the cage, not caring to eat at all. This diſeaſe often befals them for want of water, having charlock ſeeds mingled among their rape-ſeeds, and for want of giving them a little green meat in the ſpring of the year. When you perceive your bird begin to be troubled with this evil, cut the end of his rump, and give him white ſugar-candy, with two or three bits of liquorice, or for want of ſuch ſugar-candy put in fine ſugar; for his meat you ſhould give him beet and lettuce-ſeeds to feed on, or ſome of the herb mercury, which is very good againſt this diſtemper for any ſeed-bird. You may likewiſe give him melon-ſeed chopped ſmall; at the bottom of the cage lay ſome gravel, with a little powdered ſugar, and a little ground oatmeal; you may alſo put in ſome loam, with which the country people daub their walls inſtead of mortar and ſand, bruiſed ſmall, and it will bring the bird to his ſtomach if he be not paſt cure.

This bird is ſubject to the ſtrains, or convulſions of the breaſt, for which you are to feed him with lettuce, beet, and melon-ſeeds, bruiſed; diſſolve ſugar-candy in his water, and ſome of the nightingale's paſte, with a little liquorice, ſo much that the water may taſte of it; continue this courſe for the ſpace of four or five days, now and then taking it away and giving him plantain water; and the ſame day be ſure to give him beet or lettuce-leaf.

The linnet is ſubject to a hoarſeneſs in his voice, which many times comes through his ſtraining in ſinging; and he often gets a huſk in his throat which is ſeldom helped, to come ſo clear off as at firſt; it frequently alſo happens, if he be a ſtrong mettled bird, that he breaks ſomewhat within him, ſo that he will never come to ſing again; and farther, the ſaid hoarſeneſs proceeds from his being kept up very hot, and on a ſudden his cage opened to the air, which immediately ſtrikes a cold to his breaſt and throat, and often kills him; for if you have a bird in the moult, you muſt not carry him to the air, but keep him from the air till he is moulted off. then open him by degrees, that he may not take cold, and after his moult, give him beet-leaves, or ſome liquorice in his water, to cleanſe him. Now to cure his hoarſeneſs, the beſt remedy is, to put ſome liquorice and a few anniſeeds in his water, and then to ſet him in a warm place. *See* PASTE.

LIPPITUDE. A lippitude is a defluxion of a ſalt, ſharp humour from the eyes, attended with an itching, pain and redneſs; the eye-lid ſwelling, ſo as to turn the inſide as it were outward; the ſight grows dull, and the eyes frequently cloſed up: it uſually attacks young horſes at about five or ſix years of age; it comes and goes once in three months, or oftener, and continues each time, more or leſs, from a week to a month; thus it goes on, perhaps, two years or more, when all the ſymptoms ceaſe, but end in a cataract.

The ſharp humour abovementioned runs down the cheek in greater or leſs quantities, and is ſo hot as to ſcald and deſtroy the hair there: the veins in all the parts about the eyes are very turgid, ſometimes the eye appears dull, at others cloudy, then again clearer: but it is rarely ſprightly: the humour that diſtils from the eyes is ſometimes ſo thick as to give up the eye-lids for ſome time.

The ſeat of this diſeaſe is the glands on the inſide of the eye-lids; and it may be obſerved, that if they are of a good ſize, and well ſhaped, if they are clear, and the light is good, as ſoon as the ſharp humours abate, if the returns are leſs violent and more rare, ſome hope of recovery, without ending in a cataract, may be indulged; but if the eye ſhrinks and grows leſs, a cataract will certainly enſue.

In order to the cure, if the eye is not in a periſhing ſtate, and the horſe in low condition, bleed: then, once in eight days give a cooling purge; and, on the days free from purging, give diuretics, particularly nitre,

nitre to the quantity of two ounces in a day: and, in order to ſtrengthen the relaxed glands, and membrane of the eye-lid, many light ſcarifications may be made, with a lancet, on the inſide of the eye-lid, which turns out; then the whole eye may be waſhed two or three times a day with the following lotion:

Take of white vitriol, two drachms; camphor, one drachm; rub them well together, then gradually mix them with a pint of water.

When by theſe means, the ſharp humour decreaſes, give the following alterative powder, every morning, for two or three months; then, after an interval of the ſame time, repeat it as before.

Alterative Powder.

Take of crude antimony, half an ounce; gum guaiacum, two drachms; mix them for one doſe.

When the blood veſſels about the eyes and parts adjacent, are extremely turgid, they may be well bathed, two or three times a day, with ſtrong vinegar. It is the practice of ſome on theſe occaſions, to take up the principal branches of veins; and in ſome other caſes, to tie up arteries; but this method is rather hurtful than otherwiſe, by checking the circulation and depriving the parts of nouriſhment.

If the eye ſeems to ſhrink, waſh it with the following, two or three times a day.

The Collyrium.

Take of crude ſal ammoniac, two drachms; brandy, four ounces; lime-water, one pint, mixed.

With this collyrium, try alſo what a better diet will do; allow him a moderate quantity of oats: good nouriſhment and moderate exerciſe may give a favourable turn; indeed, in diſorders of the eyes, hard labour ſhould be univerſally avoided. It is worthy of remark, that low keeping, after good and plentiful feeding, greatly hurts the ſight; and hard labour, added to the ſparing diet, aggravates the diſadvantage conſiderably. Colts are often made to go blind, by full feeding, and early hard working.

Theſe means not ſucceeding, the laſt reſource is mercurials; and, perhaps, the moſt proper will be the turbith mineral, which may be given as directed for the farcy.

LIPS OF A HORSE. If theſe be thin and little, they contribute to a good mouth, but the contrary if they be large and thick.

LISTENING. A horſe is ſaid to go a liſtening pace. *See* ECOUTE.

LIVER, STOPPAGES IN, IN HORSES. The obſtruction in the liver frequently happens through exceſs of humours, that are not capable of being digeſted into good and wholeſome blood; they clog and hinder the cavities of the paſſages, and by that means cauſe pains and ſickneſs. Theſe humours are known by the dulneſs of the countenance, hanging of the head, often ſtraining, and inward groaning.

Take agrimony, chamomile, fumitory, parſley, wormwood, ſuccory, endive, the ſeeds of lupines, and flowers of Mayweed, a handful; liquorice, gentian, and ſpikenard, of each an ounce: bruiſe them well, and boil them in a quantity ſufficient of cyder or perry, and give it the horſe very warm, and let him walk thereupon for the ſpace of an hour after; and a fortnight after be ſparing in his diet, that the humours by this means may diſperſe and conſume.

LIVER, DEFECTIVE, IN SWINE. To reſtore.

Take an ounce of flour of brimſtone, and half a drachm of crude antimony; put it into half a pint of verjuice, or the juice of four grapes, and give it warm; this will alſo reſtore a palled appetite.

LOACH. Though it is a ſmall, yet it is a fine fiſh: his breeding and feeding is in little and clear ſwift brooks or rivulets, and in ſharp ſtreams; gravel is his uſual food.

He is ſmall and ſlender, ſeldom exceeding three inches in length: he is bearded like a barbel, having two fins at his ſides, four at his belly, and only one at his tail, and is freckled with many black and brown ſpots.

The loach is commonly full of ſpawn, which is, with the fleſh, a very grateful food to weak ſtomachs, affording great nouriſhment. He is to be taken with a very ſmall worm, near the ground, for he delights to be near the gravel, and therefore is ſeldom ſeen on the top of the water.

LOCKS, are pieces of leather, two fingers broad, turned round, and ſtuffed on the inſide, to prevent their hurting the paſtern of a horſe, round which they are clapped.

To LODGE (among Foreſters) a buck is ſaid to lodge, when he goes to reſt.

LONG-JOINTED HORSE, is one whoſe paſtern is ſlender and pliant.

LOW. To carry low. *See* CARRY.

LOW-BELL AND HAND-NET. With theſe inſtruments birds are taken in champaign countries, as alſo in ſtubble-fields, eſpecially that of wheat, from the middle of *October* to the end of *March*, and after this manner; when the air is mild, about nine o'clock at night, the moon not ſhining, take the low-bell, which ſhould be of a deep hollow ſound, and of ſuch a reaſonable ſize as may be well carried in one hand, toll this bell juſt as a weather-ſheep does, while he is feeding in paſture ground: you may alſo have a box much like a lanthorn, about a foot and a half ſquare, big enough to hold two or three great lights, let it be lined with tin, and one ſide open to ſend forth the light; fix this box to your breaſt to carry before you, and the light will caſt at a great diſtance before you, very broad, by which means you may ſee any thing on the ground within the compaſs of the light, and conſequently the birds that rooſt therein.

For the taking of them you are to have two men with you, one on each ſide, walking a little after you, that they may not be within the reflexion of the light that the lanthorn or box caſts forth; and each of them ſhould be provided with a hand-net, about three or four feet ſquare, which muſt be fixed to a long ſtick, to carry in their hands, ſo that when either of them ſees any birds on his ſide, he is to caſt his net over them, and ſo take

take them up, with as little noiſe as may be; and let him that carries the light and low-bell be the foremoſt to take them up, without being too haſty, for fear of raiſing others.

The ſound of the low-bell cauſes the birds to lie cloſe, and not to ſtir while you lay the net over them.

If you would practiſe this ſport by yourſelf, carry the low-bell in one hand, and in the other a net, about two feet broad and three long, with a handle, which is to lay upon them as you eſpy them: but ſome perſons, inſtead of holding the light to their breaſt, tie the low-bell to their girdle, and their motion cauſes the bell to ſtrike: and the light they carry in their hand, extending their arm before them; but then their lanthorn or box, is not ſo large as that hung at the breaſt.

LOYAL. A horſe is ſaid to be loyal that freely bends all his force, in obeying and performing any manage he is put to, does not defend himſelf or reſiſt, notwithſtanding his being ill treated.

A loyal mouth is an excellent mouth, of the nature of ſuch as we call mouths with a full reſt upon the hand.

LUNGS. *See* PLEURA.

LUNGS OF ASSES, imperfections in, are known by painful or heavy breathings or pantings, to remove which,

Boil mugwort and bay-leaves in water; ſweeten it with brown ſugar, or ſugar-candy if you can get it, and give a pint at morning and evening.

LUNGS IN BEASTS, growing of. The lungs of beaſts are very oft ſubject to ſickneſs or ſtopping, as will appear by their coughing, and wheeſing, and ſometimes hanging forth their tongues a great while after, which is a great ſign of an impediment in their lungs.

Take a pint of tanner's oaze; blend it with a pint of new milk, an ounce of ſugar-candy, two penny-worth of ſallad oil, and two ſpoonfuls of tar; and give it to the beaſt warm at twice.

Alſo you may give them two balls (each as big as an egg) or tar, butter, garlic, and ſugar-candy, blended together, and it will mend them very ſpeedily. Or,

Take cloves, anniſeeds, long-pepper, turmeric and fenugreek, of each an ounce; boil them in ſmall ale, and give half a pint hot in a morning for a week.

LUNGS OF GOATS, conſumptive, to cure.

Take the leaves of dew-berries or brambles, ſcabious and comfrey, each a handful, liquorice and anniſeeds each an ounce, boil them in ſmall beer a quart or three pints, ſtrain it out, and give half a pint warm morning and evening.

LUNES. } (in Falconry) leaſhes, or long lines
LOWINGS. } to call in hawks.

LUNETS. A ſort of leather ſpectacles for vicious horſes.

LURCHER. A kind of hunting-dog, much like a mongrel greyhound, with pricked ears, a ſhagged coat, and generally of a yellowiſh white colour: they are very ſwift runners, ſo that if they get between the burroughs and the conies they ſeldom miſs; and this is their common practice in hunting; yet they uſe other ſubtleties, as the tumbler does, ſome of them bringing in their game, and thoſe are the beſt. It is alſo obſervable that a lurcher will run down a hare at ſtretch.

LURE (in Falconry) a device of leather, in the ſhape of two wings, ſtuck with feathers, and baited with a piece of fleſh, to call back a hawk when at a conſiderable diſtance.

MADNESS IN CATTLE, to cure.

Firſt cord them in the neck; let them blood in the temples, under the eyes, and in the ears; let them bleed very well, and give them fenugreek, turmeric, long pepper, and green anniſeeds, all in like portions, and but three penny-worth in the whole, with the juice of rue, or elſe very ſmall grains, put together: give it them in a quart of ſtrong ale or beer milk-warm, but give one half of the thinneſt in at their noſtrils, and the reſt at their mouth.

This diſeaſe is eaſily found out; for they will reel as they go, and ſet their head into their neck, or againſt a wall or a gate, and two men can hardly ſtir them.

MADNESS IN DOGS. *See* DOGS MADNESS.

MADNESS, OR FRENZY in horſes.

This diſeaſe is very dangerous, and often terminates in death, and is occaſioned by hot and fiery humours, unſeaſonably mixing with the blood which by its aſcending inflammation afflicts the brain, that principal ſeat of life: and this is known by the ſtaring of the horſe, the diſtorting of his eyes, hanging of his ears, ſtaggering and giddineſs, his often crying and forſaking his meat, and, if it be wrought to a height, his often beating himſelf againſt the poſts, manger, and other places he can conveniently come at, biting, ſtamping, and flying about, with many the like diſorders. The remedy is,

Speedily let him blood in the temple veins, and if he bleed not freely there, ſtrike him in the neck veins, when having bled ſufficiently, take the roots of gourds, or wild cucumbers, black hellebore, rue, and mint, with virga paſtoris, of each a handful, boil them in beer or fair running water, and give him the liquid part very warm, and doing ſo three or four times it will purify and purge the blood; but if you ſuppoſe it too weak for the horſe's conſtitution, you may diſſolve in it an ounce of well waſhed aloes; and obſerve in this caſe above all things to keep him warm.

MADNESS IN RABBITS; a diſorder not uncommon, and is cauſed by corrupt blood, by rankneſs of feeding, and is known by their leaping, tumbling, and wallowing with their heels upwards. The remedy is,

Strew endive, parſley and hart-thiſtle about their holes, and by eating theſe it will cure them.

MADNESS IN SWINE ſhould be ſpeedily looked to, as it is a dangerous diſtemper, moſtly cauſed through worms breeding in the head, and ſometimes makes the ſwine deſtroy himſelf by beating againſt the ſty, or tumbling down ſome ſteep place, or into the water, unleſs

unleſs great care be taken. The following is the remedy,

Take an ounce of the juice of briony root, as much of the juice of wormwood, ſingle poppy water a quarter of a pint; hold up his head by ſtrength, and put theſe warm into his noſtrils, and ſo hold it the ſpace of a quarter of an hour at leaſt, then give him a drench of vinegar, wherein colewort leaves or lettuce have been boiled.

MAGGOTS IN SWINE, to remove.

Get black ſoap, or for want of it other ſoap, mix it with tar or tar-water, and anoint the place. This will not only kill the preſent, but even prevent the future from breeding in ſore places.

MAGGOT-FISHING begins with *May* and continues till *Chriſtmas*; but the beſt time for taking grayling in rivers, is from the middle of *Auguſt* till *November*. Maggots are conſtantly of uſe in fiſhing; for all ſorts of freſh-water fiſh (except ſalmon, pike, and ſhad) will feed upon this bait in a very plentiful manner. It is the beſt bait for quickneſs of ſport; for upon throwing in a few handfuls upon them, by little and little, before you begin to fiſh, you will by that means draw the fiſh together, and they will pick up the baits from the bottom, juſt as the poultry will pick up their food from the ground.

It was formerly the practice to bait the hook with the maggot, and to bait the holes with other ſort of ground baits, which could afford but little ſport; for neither trout, grayling, nor perch will eat grains, ſtewed malt, paſtes, or any ſuch dead baits, and therefore it is neceſſary to bait the hole, with the ſame you put upon your hook; living baits, when thrown into the water, being much more tempting than dead ones, and make the fiſh more eager. If you loſe a hook in a grayling's mouth, there is great probability that in five minutes you recover it, by uſing more caution the next time you ſtrike; for when the fiſh are come in ſhoals to your baiting-place, the largeſt fiſh preſſes moſt forward, and ſooneſt catches your bait.

When you fiſh in rivers with this bait, your line ſhould be finer than for pool-fiſhing, and leaded pretty heavy: the lower link muſt be a ſingle hair, or a fine ſilk-worm gut; and always obſerve that your ſhot drags upon the bottom, eſpecially in a ſtream.

MAGPIES, GLEADS, AND CROWS, TO TAKE. When you have found any carrion, upon which crows, pies, kites, &c. are preying, over night ſet your lime-twigs every where about the carrion, but let them be ſmall, and not ſet too thick; if they are, they being ſubtle birds, will ſuſpect ſome miſchief deſigned againſt them. When you perceive one to be faſt, advance not to him preſently, for moſt commonly when they are ſurely caught, they are not ſenſible of it.

They may be taken another way, and that is by joining ſeveral nooſes to a packthread, and pegging it down about a yard from the carrion; for oftentimes when they have gotten a piece of fleſh, they are apt to run away to feed themſelves, and if the nooſes be thick, it is two to one but the nooſes catch ſome of them by the leg.

MAILED, ſpeckled, or full of ſpecks, as the feathers of hawks, partridges, &c. or as the furs of ſome wild beaſts are.

MAKE-HAWK among falconers, an old ſtaunch hawk, which being uſed to fly, will eaſily inſtruct a young one.

MALANDERS, } a diſeaſe in horſes, which takes
MALENDERS, } its name of *malandare*, *Italian*, to go ill. They are certain chops, or chinks, appearing on the inſide of the fore legs, juſt againſt the bending of the knee, which diſcharge a red ſharp pungent water.

They are painful, and make a horſe go ſtiff, and ſometimes to halt at his firſt ſetting out of the ſtable.

They are eaſy to be diſcovered, by the ſtaring and briſtly hairs growing out of the affected part, and they are frequently attended with a ſort of ſcab, either bigger or leſſer, according to the various degrees of this evil ſorrance.

They proceed ſometimes from corrupt blood, hard labour, or being over-ridden; ſometimes from want of clean keeping or rubbing; and moſt commonly ſuch horſes as have the moſt hairy legs (as the *Flanders* and *Frieſland* horſes) are moſt ſubject to this diſeaſe.

Thoſe things which are good for the ſcratches, and ſelanders (*which ſee*) are all good for this.

They proceed from the ſame cauſe, and conſequently require the ſame method of cure, which conſiſts in waſhing the parts with old chamber-lye, or a lather of ſoap, warmed; and afterwards applying over the cracks a ſtrong mercurial ointment ſpread on tow, and renewed night and morning till the ſcabs fall off, and the cure is completed; when it will be neceſſary to give the creature a gentle purge or two.

Inſtead of a complete cure, you ought rather only to endeavour to allay the humour, and qualify its ſharpneſs; and therefore content yourſelf with keeping the part very clean, by ſcouring off the corruption that ſticks to the hair or ſkin, with black ſoap, rubbing the malanders with it, and waſhing them with urine, or good lye, or oil of nuts ſhaken with water; or elſe to anoint them with butter fried till it becomes black.

But the ſureſt method of cure, is to mingle equal quantities of linſeed oil and aqua vitæ, ſtirring them and ſhaking them till the mixture grows white, with which anoint the ſorrance once a day, which will dry a little, and allay the ſharpneſs of the humour, ſo that the malanders will neither cauſe a ſwelling nor pain.

MALT-LONG, } is a cankerous ſorrance about
MALT-WORM, } the hoof of an horſe, juſt upon the coronet, which breaks out into knobs and bunches that run with a watery, ſharp lye, and humour, which will, if let alone, envenom the whole foot.

For the cure: if it be in ſummer-time, pound black ſnails and burdock-roots together, and lay them on the ſore: renewing the application once in twenty-four hours.

If in the winter-time, pound the ſcrapings of a pot or cauldron,

cauldron, with a handful of the inner rind of the elder-tree, and apply it to the ſorrance; renewing the application once a day. Or you may lay a like quantity of garlic, pepper, and honey, ſtamped together, on the part affected.

MANAGE, is a word that ſignifies, not only the ground ſet apart for the exerciſe of riding the great horſe, but likewiſe the exerciſe itſelf. The manage, or ground proper for managing horſes, is ſometimes a covered place, as riding-houſes in great academies, for continuing the exerciſe in bad weather; ſometimes it is open in order to give more liberty and pleaſure, both to the horſe and horſeman.

We always ſuppoſe a center in the middle of the manage, for regulating the rounds and volts.

Sometimes this centre is diſtinguiſhed by a pillar fixed in it, to which they tie the horſe when he begins to learn; upon the ſide of the manage other pillars are placed, two by two in order to teach horſes the ſore quarters, by tying them with ropes. *See* PILLAR.

MANAGE, OR EXERCISE OF A HORSE, is a particular way of working or riding him.

Make your horſes work upon the air and the manage that you uſed to put them moſt to.

A horſe is ſaid to manage, when he works upon volts and airs, which ſuppoſes him broke and bred.

A horſe is ſaid to be thoroughly managed, or a finiſhed horſe, that is well broke and bred, and confirmed in a particular air or manage.

HIGH MANAGE, is the high or raiſed airs which are proper for leaping horſes.

In chuſing a horſe for the manage, make choice of a horſe of a middle ſize, that is likely, full of ſpirit and action, ſhort truſſed, well coupled, having good feet and legs, and ſhoulders very eaſy and ſupple.

It ought alſo to be obſerved, that horſes which have thick, ſtiff, and ſhort joints, that are no ways flexible or pliant, are unfit for the manage; for glib and bending joints, if they be not too long, are one of the chief qualities requiſite in a fine and delicate horſe of manage.

As for the age moſt proper to begin to work a horſe deſigned for the manage, he ſhould not be too young, not only becauſe his apprehenſion is not yet come to him, but alſo becauſe a horſe of three years old being but a griſtle, ſtopping and going back will ſpoil him, by ſtraining his back and ſtretching his hams.

Management of Cattle; and firſt of Oxen and Cows.

In the choice of theſe cattle, the farmer ſhould be particularly careful to conſider the nature of his ground. If his paſture is rich and good, he ſhould purchaſe the larger breed; if otherwiſe, the ſmaller ſort. The *Lancaſhire* is the largeſt, and the *Scotch* and *Welch* the ſmalleſt; but there are many ſorts between. Thoſe bred in *Yorkſhire* are middle ſized, chiefly red and hardy; they yield very good profit, and will thrive on almoſt any ſoil. All the cattle of this kind ſhould be choſen of one ſort and as near in ſize and colour as poſſible. As the breed greatly depends on the bull, great care ſhould be taken to chooſe one that is ſtrong, well made, full of vigour, and perfectly in health; one that has a ſharp quick countenance, a broad curly forehead, large black eyes, long horns, a thick neck, a long and large belly, ſmooth hair, ſtraight flat back, ſquare buttocks, round and fleſhy thighs, and his legs ſtraight with very ſhort joints. Bulls of this deſcription will produce the beſt breed of draught oxen.

The choice of the cow is likewiſe equally important, as the breed will naturally poſſeſs a certain ſhare of the bad as well as good qualities of each of their progenitors. I would therefore recommend thoſe that have broad black full eyes, large horns, a broad forehead, a long and thin neck, a deep belly, round legs, thick thighs, ſhort joints, large deep udder with four teats, and large feet with ſound hoofs.

The ſize of the cows, as I obſerved before, muſt be ſuited to the goodneſs of your land, though the largeſt generally give moſt milk; but for whatever purpoſe you purchaſe them, whether for breeding, fatting, or milking, by all means buy thoſe that are taken from worſe ground than your own.

Do not put the cow to bull till ſhe is three years old, and then let it be about the month of *July*. If ſhe has had calf before, it muſt be taken from her, and ſhe muſt be milked for three days after to prevent her udder being ſore. The red cow is eſteemed the beſt for milk, and the black for producing calves.

Put the cow into good graſs about a fortnight before ſhe calves; or, if it happens in the winter ſeaſon, give her hay, and when ſhe has calved keep her that day and night in the houſe, and let the water ſhe drinks be made lukewarm; turn her out about the middle of the next day, if ſhe has gained ſufficient ſtrength and is well cleanſed, and take her in three or four nights more, and give her water, after taking off the chill, every morning.

Some take thoſe calves they deſign to rear, away from the dams after they have ſuckled about a fortnight; others let them run with their dam all the year. The latter, however, is the moſt common way in the cheap breeding countries, and is conſidered to make the beſt cattle.

The moſt proper time for weaning calves is from *January* to *May*. Let them have milk for about twelve weeks, only a fortnight before you wean them mix water with it: and after they have drank milk about a month, take ſome of the ſweeteſt hay you can get, and put ſmall wiſps of it into ſome cleft ſticks, and place it ſo that they may eaſily come at it and learn to eat. After *Lady-day* when the weather is fine, they may be turned out to graſs, but do not neglect to take them in the firſt two or three nights, and give them milk and water. Let them be put to graſs that is ſhort and ſweet, that they may get it with ſome labour.

After the calves are weaned, ſet aſide thoſe males you intend to keep for bulls, and let the others be gelded for oxen; this I recommend to be done when they are about twenty days old, being at that time the leaſt dangerous.

Oxen for the plough muſt be neither too fat nor too lean: the body ſhould be large, the legs long and ſtrong, the

the eyes full, the horns large, and the coat ſmooth and even. They muſt be well trained, ſo as quickly to anſwer the goad, and be obedient to the voice; but it is only by gentle and gradual means, and beginning early, that the ox can be brought chearfully to bear the yoke, and be eaſily governed.

At the age of two years and a half, or three at the lateſt, you muſt begin to tame him, and bring him under ſubjection; if delayed longer, he becomes froward, and often ungovernable. The only method of ſucceeding is, by patience, mildneſs, and even careſſes, for compulſion and ill treatment will only diſguſt him; ſtroaking him gently along the back, clapping him, giving him occaſionally boiled barley, ground beans, and ſuch other aliments as pleaſe him beſt, all of them mingled with ſalt, of which he is very fond, will prove of the greateſt uſe. At the ſame time his horns ſhould be often tied, and ſome days after the yoke is to be put on his neck and faſtened to a plough, with another ox of the ſame ſize ready trained; theſe are to be tied together at the manger, and in the ſame manner led to paſture, that they may become acquainted, and accuſtomed to have one common motion. He muſt alſo be indulged, and labour only at ſhort intervals; for till he is thoroughly trained he tires himſelf very much; and for the ſame reaſon he muſt be fed more plentiful than uſual. After he has drawn the plough from his third to his tenth year, it will be adviſeable to fatten and ſell him, as being then of a better fleſh than if he was kept longer.

The age of this creature is known by his teeth and horns. The firſt fore teeth which he ſheds at the end of ten months, are replaced by others, larger, but not ſo white; at ſix months the teeth next to thoſe in the middle fall out, and are alſo replaced by others; and in three years all the inciſive teeth are renewed. They are then equal, long, and pretty white; but as the ox advances in years, they wear, become unequal, and black. It is the ſame in the bull and cow; ſo that the growth, and ſhedding of the teeth are not affected by caſtration, or the difference of ſexes. Nor is the ſhedding of the horns affected by either; as both bull, ox, and cow, loſe them alike at the end of three years; and theſe are alſo replaced by other horns, which, like the ſecond teeth, remain; only thoſe of the ox and cow are larger and longer than thoſe of the bull. The manner of the growth of theſe ſecond horns is not uniform, nor the ſhooting of them equal. The firſt year, that is, the fourth of the ox's age, two ſmall pointed horns make their appearance, neatly formed, ſmooth, and towards the head terminated by a kind of button. The following year this button moves from the head, being impelled by a corneous cylinder, which alſo lengthening, is terminated by another button, and ſo on; for the horns continue growing as long as the creature lives. Theſe buttons become annular joints, which are eaſily diſtinguiſhed in the horn, and by which the age of the creature may be readily known; counting three years for the point of the horn to the firſt joint, and one year for each of the other intervals.

The diſeaſes of theſe creatures are fewer than thoſe to which the horſe is incident, and in general they are more eaſily cured.

Sheep.

Sheep differ no leſs in their reſpective breeds, than in their ſize, and the quantities and goodneſs of their wool. If the farmer has a rich paſture, he ſhould chuſe the beſt; but if otherwiſe, he muſt be content to ſuit the kind to the nature of his ground.

With reſpect to the breeds, there is no certain direction for their choice, becauſe they are often mixt; but in general the large *Lincolnſhire* ſheep are fit for rich paſtures, that lie upon the banks of ſalt water rivers, or ſuch as are within the influence of the tide. The beſt for rich paſtures out of the reach of ſalt water is the *Leiceſterſhire* breed; and for thoſe whoſe ground lies high, the *Herefordſhire*. Theſe laſt, though of a ſmaller kind, are yet very profitable. For a barren paſture the *Worceſterſhire* ſheep are beſt.

Whatever breed the farmer chuſes, he muſt be careful that the ſheep are good of their ſort. The wool muſt not be harſh, but oily and ſoft; the ſheep muſt be well ſhaped, and large boned for the ſize. The rams ſhould be choſen with particular care, becauſe the breed will in great meaſure depend on them. They muſt have ſoft and well curled wool, with the ſkin white under it; the body ſhould be long, the forehead large and riſing, the eyes full, and their looks cheerful. The ewes muſt be large bodied, their neck arched, round upon the buttocks, and ſhort legged.

The farmer ſhould not purchaſe thoſe ſheep that are in any part naked; for the loſs of wool is generally the conſequence of ſome inward or outward diſorder. He muſt be careful, likewiſe, to examine the mouth, for if the gums be not red and the teeth faſt, the creature will come to litle good. The time of buying them when intended for breed, is two years old, and they will then breed five years very well. The age of a ſheep, like that of a horſe, is known by the mouth. When a ſheep is one ſhear, as the farmers expreſs it, there are two broad teeth before; when it is two ſhear, it will have four: when three, ſix; when four, eight. After this their mouths begin to break. The quality of the land makes a material difference in the breed of the ſheep. The flat paſtures produce ſtrait tall ſheep, and the barren hills and downs breed ſhort ſquare ones; woods and mountains breed tall and ſlender ſheep, but the beſt of all are thoſe bred upon new ploughed land, and dry grounds. On the contrary, all wet and moiſt lands are bad for ſheep, eſpecially ſuch as are ſubject to be overflowed, and to have ſand and dirt left on them. The ſalt maſhes are, however, an exception to this general rule, for their ſaltneſs makes amends for their moiſture, any thing of ſalt, by reaſon of its drying quality, being of great advantage.

Before the rams are put to the ewes, the farmer ſhould conſider at what time of the ſpring his graſs will be fit to maintain them and their lambs, and whether he has turnips to do it till the graſs comes; for very often both the ewes and lambs are deſtroyed by the want of food; or, if this does not happen, if the lambs

are only ſtinted in their growth by it, it is an accident that they ſeldom recover. The ewe goes twenty weeks with lamb, and therefore it is eaſy to calculate the proper time for her to take ram.

The beſt time for them to yean is in *April*, unleſs the farmer has very forward graſs, or turnips, or the ſheep are field ſheep, where he has not incloſures to keep them in, then it may be proper they ſhould yean in *January*, that the lambs may be ſtrong by *May-day*, and be able to follow the dam over the fallows and water furrows; but then the lambs that come ſo early muſt have great care taken of them, as, indeed, ſhould all other lambs at their firſt falling, otherwiſe, while they are weak, the crows and magpies will pick out their eyes.

If you ſave the graſs and weeds that grow in the land that you deſign to fallow in winter, that is, from *Chriſtmas*, and turn your ewes and lambs into them in *March*, if the winter is mild it will be of great advantage to them.

When ſheep are turned into fields of wheat or rye to feed, it muſt not be too rank, for if it is, they will be ſubject to ſcour. Ewes that are big ſhould be kept but bare of food, for it is very dangerous for them to be fat at the time of their yeaning; except, indeed, about a fortnight or three weeks before, they may be pretty well fed to ſtrengthen them.

When a ewe is near yeaning, ſhe muſt be ſeparated from the flock, and watched, in order to be aſſiſted; the lamb often preſents itſelf athwart, or with its feet firſt; and in this caſe, without aſſiſtance, the life of the ewe would be in danger. After yeaning, the lamb muſt be raiſed on its feet; at the ſame time all the milk in the ewe's udder muſt be milked out, it being vitiated and very noxious to the lamb, which muſt be kept from ſucking till the udder is filled with freſh milk. The lamb muſt be kept warm, and for three or four days ſhut up with the ewe, that it may learn to know her, during which time the ewe muſt be fed with good hay, barley meal, or bran mixed with a little ſalt; and water with the chill taken-off, and mixed with a ſmall quantity of flour, bean-meal, or ground millet, given her to drink. At the end of four or five days ſhe may be gradually fed like the reſt, and ſent with the flock, taking care that ſhe be not driven too far, leſt her milk be heated. Some time after, when the ſucking lamb has gathered ſtrength, and begins to play, no farther care is requiſite; it may be left to follow its dam to the paſtures.

To bring up lambs yeaned in the months of *October*, *November*, *December*, *January*, and *February*, they muſt be kept warm in the houſe during the winter, and not ſuffered to go out, except in the morning and evening to ſuck; but in the beginning of *April*, if the ſeaſon is mild, you may turn them into the fields. Previous to their going out, a little graſs ſhould be occaſionally given them, in order to habituate them by degrees to their new food. I would not adviſe the weaning of them before the expiration of ſix weeks or two months, though I know it is a cuſtom with many to do it at a month. It may be here neceſſary to obſerve, that white lambs are always preferred to thoſe that are black or mottled, white wool being the moſt valuable

With reſpect to the time for cutting lambs, let them be about five or ſix months old, or even a little later in ſpring or autumn, when the weather is mild. This operation is performed two ways; the moſt common is by inciſion, when the teſticles, which are eaſily ſeparated, are drawn out through the wound. The other is performed without inciſion, by tying a ſmall cord very tight round the ſcrotum above the teſticles: for this compreſſion deſtroys the veſſels which ſupply them with blood and juice.

When caſtration is performed, the lamb becomes ſickly and dull, therefore it is neceſſary to give him, for two or three days, a little bran mixed with a ſmall quantity of ſalt: this will prevent a loſs of appetite, which frequently happens on the occaſion.

The ſhearing ſeaſon is beſt when it happens about the middle or latter end of *June*, becauſe it is good for them to ſweat a little in their wool before you cut it, and they muſt be well waſhed, as it will be a great help to the price of the wool. After they are waſhed, let them go two or three days in clean dry ground before they are ſhorn; in doing of which, great care muſt be taken not to hurt them with the point of the ſhears, nor yet cut their ſkins, becauſe of the flies, and obſerve that the wool be well wound up. Some ſhear their lambs alſo, which they do cloſe behind, and very little before, eſpecially the firſt year; but before they are ſhorn, great care ſhould be taken to tag them, that is, to clip away the wool of their tails, and behind, that the dung may not hang on it, which otherwiſe will occaſion them to be ſore, and the flies to blow them.

In general the weathers have the moſt wool, and it is alſo the beſt. That of the neck and the top of the back is the prime; that of the tail, thighs, belly, throat, *&c.* is not ſo good; and the worſt is that taken from dead beaſts, or ſuch as are ſick. White wool is alſo preferred to grey, brown, or black, as it may be died of any colour. Straight wool is better than curled, and it is even ſaid that the weathers, whoſe wool is too much curled, are not in ſo good a ſtate of health as the others.

Another very conſiderable advantage may alſo be reaped by folding them, that is, by leaving them for a proper time on lands intended for improvement. In order to this the ground muſt be incloſed, and the flock ſhut up in it every night during the ſummer. Theſe incloſures are made with hurdles, which are ſo contrived as to remove from one ſpot to another, as occaſion may require. By this means the dung, urine, and heat of the body of theſe valuable animals will in a ſhort time bring the ground into heart, whether exhauſted or naturally cold and barren. Experience has proved that one hundred ſheep will in one ſummer enrich eight acres of ground, which will continue full ſix years its fertility.

Among the various diſorders incident to theſe creatures the moſt fatal is the rot, which is produced by wet lands, coarſe food, and want of ſhelter. In this caſe, the ſheep ſhould be removed from ſuch places at the firſt appearance of the diſorder; and the ſick ſe-

parated

parated from the ſound, becauſe the diſeaſe is ſpreading.

The ſigns of the rot are feebleneſs, foulneſs of the ſkin, and particularly a dull and heavy look about the eyes. The gums grow white, the teeth foul, and the creature will be weak and ſcarce able to ſtir. Good air and ſhelter, and wholeſome food and water are very great requiſites for recovery; for the rot is rather a general decay than any particular diſeaſe. To effect a cure, however, to the above management, add the following:

Beat to pieces a quarter of a pound of juniper berries, and one ounce of bay berries, two drachms of grains of paradiſe; and add to theſe a pound and a half of bay ſalt, and half a pound of loaf ſugar; grind all well together, and keep it dry. Give the ſheep dry ſweet hay, in troughs, and ſprinkle it with this powder. Boil a pound of maſterwort root in two gallons of water, and give this to them mixed with the water they drink. To thoſe that are ſtill worſe, give alſo three drachms of mithridate diſſolved in a little warm ale every evening.

Swine.

Hogs being the moſt hardy of the farmer's ſtock, and always under his eye, are leſs ſubject to diſorders than any other; but there requires ſome ſkill in chuſing them, and the more carefully they are managed, the better they will ſucceed. If the farmer has good convenience for feeding them, the moſt profitable kind is the common hog, which is large bodied and long legged; but this requires not only the beſt food but the greateſt care. The ſmall low bellied hog is hardier; and feeds on any thing; it produces a great many young, and is in many caſes preferable to the other. When the farmer has convenience and abundance of good food, he ſhould chuſe the firſt; but in all other caſes the latter.

In the choice of hogs or ſwine for breed, take the moſt long bodied with deep ſides and belly, a ſhort noſe, thick neck and thighs, ſhort legs, high claws, a ſhort ſtrong groin, and a thick chine well ſet with briſtles.

Be cautious of having too many ſows in one yard; for their increaſe is ſo great, that for want of food, they will not only devour whatever falls in their way, but will deſtroy each other's young.

When it happens that the ſow miſſes the time of going to boar, that ſhe might have done in courſe, give her ſome parched oats in her waſh, or the ſmall end of the rennet bag, which will make her quickly brim or take boar.

The ſow, from the time ſhe is ſerved to the delivery of her fare of pigs, goes between ſixteen and ſeventeen weeks, and if properly attended, fed well, and kept clean, will bring three fares of pigs in a year.

Never ſuffer a boar to couple before he is a year old, notwithſtanding they are capable of ſerving the ſow when they are half that age; nor ſhould a ſow be younger than a year old when ſhe is ſuffered to take boar; and then ſhe will breed ſeven years after, except ſhe happens to have too great a number of pigs at a fare; as that is, ſo will ſhe be fruitful a longer time.

Notwithſtanding a ſow will bring three farrows of pigs in a year, yet it will not be neceſſary or convenient to ſuffer them at every breaming to take boar; becauſe if they bring a great number of pigs, three farrowings in a year will weaken them too much; and conſequently the pigs themſelves would be weaker, and require a greater ſhare of nouriſhment to bring them forward than others that are ſtrong, at their firſt farrowing, or ſhall they have the benefit of being ſuckled by a dam in full ſtrength.

Though a ſow may be with pig at the firſt breaming, as is generally the caſe, yet it will be moſt prudent to ſuffer her to keep company with the boar for ſome time afterwards, to prevent the caſting of her pigs before the time. She muſt likewiſe be carefully kept from the inſults of dogs, or from being too much hurried, for theſe ſometimes have cauſed them to ſlip their pigs after three months pregnancy.

Some young ſows at their firſt farrowing are ſubject to eat their pigs, and therefore ought to be watched carefully when they are near their time. The beſt method to prevent this is, to feed her well two or three days before ſhe farrows; but if this be not done, then as ſoon as ſhe has farrowed, waſh the backs of the pigs with a ſponge dipped in an infuſion of aloes and water warmed, and this will prevent her from devouring them.

It is the opinion of ſome farmers, that the beſt bearing time is from *November* to the end of *March*, or the beginning of *April*, ſo that there will be pigs farrowed at the beſt ſeaſons, either for killing as for ſucking pigs, or for ſtock pigs, that is thoſe to be turned into the ſtubbles after harveſt, to be reared.

The moſt proper time for killing ſucking pigs, and when they are firſt accounted wholeſome, is about three weeks old, and the others that remain for breed will ſoon begin to follow the ſow, and ſhift for themſelves.

As for the pigs you deſign to rear, after you have picked out the beſt for boars and ſows, the males are to be gelt, and the females ſpayed. The ſpayed gelts, as they are termed, are counted moſt profitable, by reaſon of the great quantity of fat they have upon their inwards more than other hogs. Young ſhoots, which are ſwine of about three quarters of a year old, are beſt for pork, and thoſe of a year, or a year and a half old, for bacon.

The moſt advantageous method of taking care of ſwine, is to feed them in ſuch manner that they may be kept in a middling condition till you would have them fattened; for if you keep them too fat, it will endanger their health, and if too lean it will make them ravenous. It is likewiſe adviſeable, to give them ſuch ſwill as you ſhould have at hand every morning and evening, to make them come home to their cotes; the reſt of the day let them graze, and get what food they can; only when corn is upon the ground, care muſt be taken to keep them within bounds.

Moiſt ſedgy grounds are good for ſwine, the roots whereof they will eat: as alſo all ſorts of haws, hips,

ſloes, crabs, maſts, acorns, &c. with which, if you have plenty enough to fat them, their fleſh will prove much better and ſweeter than if fattened in a ſtye. However, if they are fattened in ſtyes, the farmer ſhould obſerve to give them as much water as they will drink, and to keep them very clean, which will much forward their fattening, and mend the taſte of their fleſh. But if the farmer lives remote from a wood, or in caſe the year does not ſuit for acorns or maſt, they muſt be fattened altogether with peaſe, if cheap, but if otherwiſe, with the meal of barley, rye, or offal corn, which muſt be mixed with water, whey, or ſkimmed milk. Thus they will be ſupplied till grown fat, which will be in about a month's time. After this, a little before they are killed, they muſt be fed only with peaſe. And farther, it is requiſite that every ſtye have a yard well paved with ſtone, for the hog to go out and eaſe himſelf, that he may keep his lodging the cleaner, and receive the benefit of the ſweet air.

It is alſo neceſſary, when hogs are put up to fatten, that they ſhould be kept out of the hearing of the cry or grunt of other hogs; for otherwiſe, upon their firſt confinement, notwithſtanding they have great plenty of food given them, they will pine and decline in their fleſh. When you are inclined to wean the pigs, feed them now and then when the ſow is from them, with the beſt milk that can be ſpared from the dairy. Let them firſt have it warm, but, at the end of three weeks, if you deſign to rear them, give it them cold, and then you may, at a month old, either let them be fed alone, or keep company with the ſow abroad.

If you are to buy hogs, and ſuſpect their health, draw your hand againſt the grain of the hair; and if the roots be white and clean, the hog is ſound, but if they be bloody and ſpotted, he is ſick.

MANE, the hair hanging down on a horſe's neck, which ſhould be long, thin and fine; but if it be frizzled, ſo much the better.

Mangineſs in the mane, may be cured by anointing it with butter and brimſtone mingled together.

MANGE IN DOGS, a diſtemper that proceeds from high feeding, and not ſufficient exerciſe, or an opportunity of refreſhing themſelves with dog-graſs, or by being ſtarved at home; which will cauſe them to eat the vileſt ſtuff abroad, ſuch as carrion, or even human excrement: either of theſe will heat their blood to a great degree, which will have a tendency to make them mangy. To cure them,

Give ſtone brimſtone, powdered fine, either in milk or mixed up with butter, and rub them well every day for a week with an ointment made of brimſtone and pork-lard, to which add a ſmall quantity of oil of turpentine. Or,

Boil four ounces of quickſilver in two quarts of water to half the quantity, bathe him every day with this water, and let him have ſome of it to lick, till the cure is perfected. Or,

A ſmall quantity of trooper's ointment, rubbed on the parts, on its firſt appearance will effect a cure. It will alſo free louſy puppies when infeſted with lice. Or,

Euphorb, album two ounces, flour of ſulphur, *Flanders* oil of bays, and ſoft ſoap, each four ounces. Anoint and rub your dog with it every other day: give him warm milk, and no water. Or,

Take large millet and ſweet turnip roots, which boil in cow's urine till it is like a broth, and with it rub your dog.

MANGE, IN SHEEP, may be cured.

Whether this appears within or without the ſkin, delay it not, but in a quart of man's urine boil the leaves and bark of elder and hemlock, then ſtrain it, and add a pint of water wherein tobacco ſtalks have been ſoaked; clip off the wool very cloſe, and waſh the place morning and evening, as hot as may be endured. Give them bay ſalt in their water, and keep them from wet paſtures and much green feeding. Or,

Take a quarter of a pint of the juice of hyſſop, a like quantity of chamomile, and a quart of water wherein tobacco ſtalks have been ſoaked, two ounces of brimſtone flour, a handful of fern root, and a quart of urine: mix the whole together, and waſh the ſheep with it as hot as may be, twice a day.

MANGE IN HORSES, is cauſed by over heat or cold, hard riding or labour, by which the blood is corrupted; or it may be occaſioned by eating unwholeſome food.

The diſtemper may be eaſily known by the ſtaring of the hair, its coming off from the ſkin in many places, and a ſcurf ariſing thereon.

When the diſtemper is caught by infection, an ointment compoſed of flowers of ſulphur and hog's-lard, will effectually cure it, if rubbed in every day immediately after the misfortune is perceived. In the mean time ſulphur and antimony ſhould be given with his feeds, and continued for ſome weeks after the cure is performed, in order to purify the blood. If the ſulphur ointment ſhould not be thought agreeable, a liquor made by ſteeping tobacco in ſtale chamber-lye, will anſwer the ſame intention; but the ſulphur and antimony ſhould be given with his feeds.

But if the diſtemper has been of ſome continuance, or if it owed its origin to low feeding, and a poverty of the blood, other methods muſt be purſued, the diet muſt be mended and the horſe indulged with a ſufficient quantity of hay and corn, and the following ointment rubbed into the parts affected every day: take of ſulphur vivum, half a pound: of crude ſal ammoniac, one ounce: and of hog's-lard a ſufficient quantity to make the whole into an ointment.

Give him every day a feed of ſcalded bran, and when the diſeaſe begins to diſappear the following purge; take of ſoccotrine aloes, ten drachms; of diaphoretic antimony, half an ounce; and of freſh jalap in powder one drachm: make the whole into a ball, with a ſufficient quantity of *Barbadoes* tar, and ſixty drops of chemical oil of anniſeeds.

If the caſe prove very obſtinate, waſh the mangy parts with ſublimate waſh, and give the brimſtone inwardly.

If

If poor feeding and hard work is the cauſe, the cure will be obvious.

Sublimate Waſh.

Take of ſublimate mercury, half an ounce; lime-water, a pint; mixed.

When the horſe is thoroughly cured of this diſtemper, it will be neceſſary to waſh the floor of the ſtable very well with ſoap-ſuds, and fume it well with burning pitch or charcoal. His cloaths alſo ſhould be laid in ſcalding water, waſhed very clean with ſoap and thoroughly dried, before they are uſed again; for if theſe precautions are not uſed, other horſes will be liable to the infection.

Another method of cure is: Take ſtaves-acre ſeeds, two handfuls, infuſe it in a quart of ſtrong vinegar and hot aſhes; waſh the mangy parts with this liquor, and it will cure it in twice bathing.

In a ſlight caſe, ſtrong tobacco infuſion, with one third ſtale urine, ſoaked well into the affected places, may ſucceed; but as an efficacious unguent, take the following: ſtrong mercurial unction, half a pound; brimſtone finely powdered, four ounces; black ſoap, two ounces; crude ſal ammoniac, an ounce and half; make the ointment with oil of bays, or of turpentine. Or, tar, gunpowder finely beaten, black ſoap, and oil of turpentine. In caſes of long ſtanding, where the ulcerations are ſo extremely foul, or if you will, the animalculæ, ſo ſtrong and vigorous as to reſiſt all moderate applications, the following ointment may be ventured: burnt alum and borax, in fine powder, two ounces each; white vitriol and verdigris, powdered, of each, four ounces; put them into a pot over the fire with two pound of honey, or lard and honey, equal parts, ſtirring till they are well incorporated; when cold, add two ounces ſtrong aqua-fortis. But I ſhould conceive the firſt ointment equal to almoſt every caſe, which being uſed at night, the ſores if need be, may be waſhed twice a day with the ſublimate water. Take half an ounce of ſublimate, in powder, diſſolve in a pint and half of water. Maſhes, &c. in courſe; cloathing and every precaution againſt cold. Finiſh the cure with well waſhing in plenty of ſoap and warm water, rubbing thoroughly dry with linen cloths.

It generally proceeds from too great a quantity of viſcid ſerum, bred in the bodies of horſes by corrupt and foul feeding, as the eating of grains, a too frequent uſe of hot maſhes, want of due exerciſe, and the want of currying, eſpecially to a horſe that has been uſed to it; for, by that means, the pores become obſtructed, and the ſeroſities of the blood are thereby accumulated in the ſmall veſſels of the ſkin; ſometimes it proceeds from want of food and due nouriſhment; whereby the blood, being depauperated, is rendered unable to reach the paſſages of the ſkin, to make a ſecretion there, ſo that its ſerous parts, being detained in the ſmall veſſels, grow corroſive, and break through the ſkin; and ſometimes it is cauſed by infection from other horſes.—The ſigns are the falling off of the hair, eſpecially about the loins and hams, and from moſt or all of the joints, according as the diſtemper is more or leſs prevalent; ſometimes from the head and neck, but very frequently from the rump; the ſkin in theſe parts, by reaſon of the heat and corroſiveneſs of the matter, turns thick, hard, and ſometimes cruſted, like that of an elephant, and the little hair that remains in thoſe parts ſtands almoſt always ſtraight out or briſtly; the ears are commonly naked, without hair; the eyes and eye-brows the ſame: and, when it affects the limbs, it gives them the ſame aſpect: yet the ſkin is not raw, nor peels off, as in the ſurfeit; and it is from theſe appearances ſeveral farriers have termed it the elephantic malady.

As to the cure, moſt farriers lay a great ſtreſs on bleeding, inſomuch, that they drain away blood from ſeveral parts of the body at once, viz. from the neck, the plate-veins, the tail, and ſometimes from the flanks; and all this from a firm but ignorant conceit, that in the mange the blood is full of corruption; which, upon examining what has been already ſaid, will be found a ridiculous practice, and very pernicious, eſpecially to thoſe horſes that are low and out of heart; as nothing ſo often makes the diſeaſe degenerate into an ill habit, which may eaſily be followed by boils and ulcers, as it weakens the whole body, and thereby adds to that which is the cauſe of the diſtemper.

Therefore all that can be propoſed by bleeding, is to leſſen the quantity thereof, when it happens to be redundant in a horſe, in order to give a freer paſſage and circulation to the juices in the extreme parts, that the ſecretions of the ſkin may be duly performed, and this I judge very neceſſary. After once bleeding, the following drench may be given:

Take jalap, in powder, an ounce and a half; ſal-polychreſt, and cream of tartar, of each one ounce; carraway-ſeeds and anniſeeds, of each an ounce and a half, in powder; mix them in a quart of warm water for one doſe. Or,

Take ſenna three ounces; boil it in two quarts of water to one quart, then ſtrain it, and add jalap and cream of tartar, of each an ounce; and buckthorn ſyrup, two ounces.

Either of theſe may be given, with the uſual precautions, but they ſhould not be often repeated; for purging is no otherwiſe neceſſary for the cure of the itch than bleeding, and only gives it a gentle help when rightly uſed, as it cools and refreſhes a plethoric and full-bodied horſe.

After theſe things recourſe muſt be had to outward applications, for it is theſe alone that muſt give the finiſhing ſtroke to it, as the diſtemper is ſeated outwardly and not deep-rooted; for that purpoſe nothing has ever been found more effectual than ſulphur, for which it bears the teſt of all ages, and, if it ſometimes proves otherwiſe, it is altogether owing to the ill management of it, or the other prepoſterous methods that are made uſe of along with it; the following will kill any mange in the beginning.

Take flour of brimſtone, elecampane-root, and white hellebore, all in fine powder, of each ſix ounces; black pepper, powdered, and oil of tartar, of each one ounce and a half; ſtrong mercurial ointment, ſix ounces; hog's-lard, three pounds; mix them well together into a ſoft ointment. Or,

Take

Take white precipitate, half a pound; hog's-lard, ſix pounds; eſſence of lemons, one ounce; mix for an ointment. Or,

Take camphor, two ounces; let it be rubbed down with a ſufficient quantity of ſweet-oil; then add white hellebore, ſix ounces; flowers of ſulphur, one pound; mix them well together, with a ſufficient quantity of hog's-lard to form a ſoft ointment. The camphor makes this ointment much more reſolving and diſcutient than the one before it.

Either of theſe being rubbed upon the parts once in twenty-four hours, will kill the mange in a few days; neither will it be neceſſary to fret the ſkin to a rawneſs; for, inſtead of doing good, that method proves more frequently prejudicial, as it excites much pain, whereby a too great derivation of the humours is cauſed towards the infected parts, which is the reaſon why even the beſt farriers are obliged to have recourſe to cauſtic medicines, the diſeaſe being grown too powerful to be deſtroyed by thoſe of a milder operation. The uſe of copperas-water, and alum-water, is likewiſe prejudicial in moſt caſes, as I have often obſerved; all that theſe can contribute towards the cure of the mange, is only by allaying the heat and itching, in which they ſometimes ſucceed; yet, as they obſtruct the pores very much by hardening the ſkin, they make it liable to crack, often rendering thoſe parts ſubject to freſh heat and inflammation, by which it degenerates to ulcers and boils. The beſt way therefore is only to rub the mangy places gently, with a woollen cloth, to produce a moderate heat in the part, by which means the ſulphurs will penetrate through the pores, into the ſmall canals and veſſels, with greater certainty than when they are daubed upon places that are raw or incruſted.

This is the true method of curing the mange.

Some make a mixture of quickſilver and brimſtone, together with an addition of ſoot and black ſoap, which in ſome moiſt and watery caſes may be uſeful. Others uſe arſenic, quickſilver, and ſome burning cauſtic remedies; but theſe ought never to be meddled with, except in very extraordinary degenerate circumſtances, and when there happens to be excreſcences that are dead, and without ſenſe, which can by no means be brought to yield to milder methods.

Solleysel recommends the following, which has been approved.

Take burnt alum and borax, in fine powder, of each two ounces; white-vitriol and verdigris, powdered, of each four ounces; put them into a clean pot, with two pounds of honey, ſtirring till they are incorporated; when cold, add two ounces of ſtrong aqua-fortis. But when this diſorder, as is generally the caſe, is contracted by low feeding and poverty of blood, the diet muſt be mended, and the horſe properly indulged with hay and corn. With this view, there muſt be a conſtant ſupply of warm maſhes, prepared with half malt and half bran, or equal parts of oats and bran, with four ounces of honey diſſolved in each: let theſe be given night and morning, with a feed of dry corn every day at noon. During this treatment (which muſt be continued a week, to ſheathe the acrimony of the fluids, and ſoften the rigidity of the ſkin) give one ounce of ſulphur in each maſh, and one ounce of nitre in water, every night and morning. In a week or ten days, when the frame becomes more invigorated, diſcontinue the maſhes, and let the diet be changed to good oats and ſweet hay; giving, in the morning and evening feeds, one of the following powders, intermixed with the corn firſt ſprinkled with water.

Sulphur and prepared antimony, each a pound; rubbed well together in a mortar, and then divided into twenty-four equal parts for as many doſes. Or,

Antimony, levigated, and ſulphur, of each twelve ounces; liver of antimony and cream of tartar, each half a pound.—Theſe to be mixed well together, and divided into the ſame number of doſes as the former. As to the external treatment; previous to the commencement of the maſhes, procure a pail of warm water and a quarter of a pound of ſoft ſoap (tied up in a linen rag) and with this, forming a ſtrong lather, let every infected part be thoroughly waſhed and cleanſed, ſo that no ſcurf or filth be left upon the ſurface; then rub tenderly dry with a coarſe cloth, or ſeparated haybands; and on the following morning begin to rub in upon every part affected a due portion of the following ointment:

Weak mercurial ointment, half a pound; quickſilver, four ounces; white hellebore, in powder, three ounces; black pepper, in powder, and oil of tartar, each one ounce; with olive-oil, ſufficient to make it of a proper ſoftneſs.

The unction muſt be repeated for ſeven days, ten days, or a fortnight, according to the urgency of the caſe.

MANGER, is a raiſed trough under the rack in the ſtable, made for receiving the grain or corn that a horſe eats.

To MANTLE; (a term in Falconry) as the hawk mantles, *i. e.* ſpreads her wings over her legs.

MARES, the female of the horſe kind, is chiefly conſidered here, under the notion of breeding, in order to propagate their ſpecies; therefore ſuch as are deſigned for this purpoſe ought to be as free from defects as poſſible, and ſhould, no more than the ſtallions, have either moon-eyes, watery-eyes, or blood-ſhot eyes; they ſhould have no ſplaint, ſpavin, nor curb, nor any natural imperfection, for the colts will take after them; but choice ſhould be made of the beſt and ableſt, the high ſpirited, beſt coloured, and fineſt ſhaped; and the natural defects that may be in the ſtallion, ſhould be amended in the mare, as well as that which is amiſs in the mare, ſhould be repaired in the ſtallion. *See* Breeding.

No mares in the world are certainly better to breed on than our *Engliſh* ones, provided you ſuit them to your particular deſign; as for inſtance, if you would breed for the manage, or pads, let your mares have fine forehands, with their head well ſet on, but not too long legs, broad breaſts, large and ſparkling eyes, and great bodies, that their foals may have room enough to lie, with good limbs and feet: let them be of a gentle and good diſpoſition, and their motions naturally nimble and graceful; in a word, remember always, that the more good qualities

qualities your mares have, the better your colts will generally prove.

But if you would breed for racing or hunting, your mares muſt be lighter, with ſhort backs, and long ſides; their legs muſt be ſometimes longer, and their breaſts not ſo broad; and always chuſe ſuch as you are ſure have good blood in their veins.

If you have tried the ſpeed and wind of any particular mare, and find it good, you may the ſurer expect a good colt, provided ſhe be ſtill in her full health and vigour, and not above ſeven years old, or eight at moſt; for the younger your breeders are, the better your colts will generally be.

A mare may be covered when ſhe is paſſed two years old, though the beſt time is after four years, when ſhe will nouriſh her colt beſt; and though ſhe may breed till thirteen, yet when ſhe is paſt ten, it does not do ſo well, for commonly an old mare's colt will be heavy in labour. The proper time for covering, is reckoned from the end of the firſt quarter to the full-moon or at the full; for thoſe colts will be ſtronger and hardier of nature; whereas it is obſerved in thoſe that are covered after the change, that they will be tender and nice: but before the mare is covered, ſhe ſhould be taken into the houſe about ſix weeks, and be well fed with good hay and oats, well ſifted, to the end ſhe may have ſtrength and ſeed to perform the office of generation.

But if you would have your mare certainly conceive, take blood from both ſides her neck, near a quart from each vein, about five or ſix days before covering.

As for the manner of covering, ſhe muſt be brought out into ſome broad place, and tied to a poſt, then bring out ſome ſtone jade to dally with her, to provoke her to appetite, after which let the ſtallion be led out by two men, and let him leap her in the morning faſting, and when he is diſmounting, let a pail of cold water be thrown upon her ſhape, which by reaſon of the coldneſs will make her ſhrink in and truſs up her body, whereby ſhe is cauſed to retain the ſeed the better. Take away the ſtallion, and let the mare be put out of the hearing of the horſe, let her neither eat nor drink in four or five hours after, and then give her a maſh and white water: you may know if ſhe ſtands to her covering, by her keeping a good ſtomach, and her not neighing at the ſight of a horſe; ſo likewiſe if ſhe does not ſtale often, nor frequently open or ſhut her ſhape; or that her belly four days after covering be more gaunt, the hair more ſleek and cloſe to her ſkin, and the like. Some there are who put the horſe and mare together into an empty houſe, for three or four nights, and take the horſe away in the morning and feed him well, but the mare ſparingly, and eſpecially they give her but little water.

As for the ordering the mare after covering, let her be kept to the ſame diet as before, for three weeks or a month, leſt the ſeed be impaired before it be formed in the womb; and let her be kept clean, without any exerciſe, during three weeks or a month, and in the houſe till mid-day with her feet well pared, and with a thin pair of ſhoes on: take her up again about the latter end of *September*, if not before, and keep her to the end of her foaling.

If ſhe cannot foal, hold her noſtrils ſo that ſhe cannot take her wind; or if that will not do, take the quantity of a walnut of madder, diſſolve it in a pint of ale, and give it warm to her; and in caſe ſhe cannot void her ſecundine, then boil two or three handfuls of fennel in running-water, put half a pint thereof in as much ſack, or for want thereof, a pint of ſtrong-beer or ale, with a fourth part of ſallad oil, mixed together, and give it her lukewarm in her noſtrils, holding them cloſe for ſome time; or for want thereof, give her good green wheat or rye, but the laſt is beſt, and they are as effectual; let her not eat her clean, for it is very unwholeſome, and will dry up her milk.

When ſhe has foaled and licked her foal, milk and ſtroke her before the colt ſucks, which will both cauſe her to bring down her milk and make it to multiply, and keep it ſo that it do not clod; and in caſe ſhe becomes dry, if there be need, boil as much milk as you can get from her with the leaves of lavender and ſpike, and bathe the udder with it warm, till it be broken, and the knobs and knots be diſſolved: her water now muſt be white water, which is bran put into water; and give her ſweet maſhes; and a month after foaling, let her have a maſh with ſome brimſtone and ſavin in it, which will be a great preſervation to the colt; after which, if ſhe be moderately laboured at plough or harrow, both ſhe and the colt will be the better, provided ſhe be kept from raw meats while ſhe remains in the ſtable, which will both increaſe her milk and cauſe her colt to thrive the better; and care muſt be taken not to ſuffer the colt to ſuck her when ſhe is hot, leſt you ſurfeit the colt.

Some are of opinion, that the winter-ſeaſon is a very improper time for foaling, becauſe of the coldneſs of the weather, and ſcarcity of graſs, ſo that the mare muſt neceſſarily be houſed and fed with hard meat, which will dry up her milk, and ſtarve the foal: yet experience teaches us that notwithſtanding all this, it is certainly the beſt time both for mare and foal too, being kept in a warm houſe; and as for her milk, ſhe will have plenty, if well fed, and that more nouriſhing than what is got at graſs, which will make him more luſty, of greater bone and ſtature, cleaner limbed, more neatly jointed and hooſed, and in much better liking, than the colt foaled in *May* or *June*, or any other of the hot months; and beſides other inconveniencies by the colt's running along with the mare, he becomes ſo ſavage and wild, that if any infirmity ſeizes him, his own unruline's being ſo great, the cure may be very difficult; for infinite are the numbers that have periſhed in this ſtate.

Now in caſe ſome time after the mare has taken horſe, you are uncertain whether ſhe be with foal or not, pour a ſpoonful of cold water or vinegar into her ear, and if ſhe only ſhakes her head, it is a ſign ſhe is with foal; but if ſhe ſhakes her head, body and all, it is a ſign ſhe is not; or if ſhe ſcours, her coat grows ſmooth and ſhining, and that ſhe grows fat, it is alſo a ſign ſhe holds.

In caſe you are deſirous no mare ſhould go barren, in the

the month of *July*, or the beginning of *Auguſt*, get a mare or two that have not been covered the year before, and enforce them to be horſed; when they ſhall be ready to be covered, you muſt turn them, with ſome other which you eſteem not as your beſt horſe, among your ſtud of mares, and by his covering that mare or mares you turned in with him into the ſtud, it will cauſe the reſt of them, if any of them have not conceived at their firſt coverings, to come to that horſe again; and you will be ſure to keep no more barren all the year, but have a colt of every mare, thought not of your beſt horſe. You may ſuffer your horſe to run amongſt your mares three weeks or a month; but if you turn him into your ſtud, putting in no mare with him ready to be covered, he will at his firſt entering beat all the mares, and perhaps hurt thoſe that had conceived before, and ſo do more hurt than good.

Some reckon the beſt receipt to bring a mare in ſeaſon, and make her retain, is to give her to eat, for the ſpace of eight days before you bring her to the horſe, about two quarts of hemp-ſeed in the morning, and the ſame at night: but if ſhe refuſes to eat it, mix with it a little bran or oats, or elſe let her faſt for a while; and if the ſtallion eats alſo of it, it will contribute much to generation.

It is a maxim, that a mare ſhould never be horſed while ſhe is bringing up her foal, becauſe the foal to which ſhe is giving ſuck, as well as that in her belly, will receive prejudice thereby, and the mare herſelf will be alſo ſooner ſpent; but if you would have your mare covered, let it be ſeven or eight days after ſhe has foaled, that ſhe may have time to cleanſe; and if it may be conveniently done, do not give her the ſtallion till ſhe deſires him, and increaſe, by all means poſſible, that paſſion, by ſtrong feeding, *&c.*

Mares, beſide the many diſtempers they are liable to in common with horſes, and which will be found under their ſeveral names, have ſome others peculiar to their kind only, of which I ſhall ſpeak, and their cure. If your mare be barren, boil a quantity of the herb agnus in the water ſhe drinks; or ſtamp a handful of leeks with four or five ſpoonfuls of wine, to which put ſome cantharides, and ſtrain them all together, with a ſufficient quantity of water to ſerve her two days together, by pouring the ſame in her nature, with a glyſter-pipe made for that purpoſe; and at three days end offer the horſe to her, and if he covers her, waſh her nature twice together with cold water; or take a little quantity of nitrum, ſparrow's dung and turpentine, wrought together, and make like a ſuppoſitory, and putting that into her nature it will do.

If you would have her fruitful, boil good ſtore of mother-wort in the water ſhe drinks.

If ſhe loſes her belly, which ſhews a conſumption of the womb, give her a quart of brine to drink, having mug-wort boiled therein.

If through good keeping ſhe forſakes her food, give her two or three days together, a ball of butter and agnus caſtus chopped together.

If ſhe be ſubject to caſt her foal, keep her at graſs very warm, and once a week give her a good warm maſh of drink, which ſecretly knits beyond expectation.

You are to obſerve, that mares go with foal eleven months and as many days as they are years old; as for inſtance a mare of nine years old, will carry her foal eleven months and nine days; ſo that you may order the covering of your mares, that their foals may be brought forth, if you will, at ſuch time as there is abundance of graſs. *See* STALLION *and* COLT.

MARK; a horſe marks, that is, he ſhews his age by a black ſpot, called the bud or eye of a bean, which appears at about five years and a half, in the cavity of the corner teeth, and is gone when he is eight years old; then he ceaſes to mark, and we ſay, he has raſed. *See* TEETH *and* RASE.

FALSE MARK, *i. e.* counter-marked.

MARKS [amongſt Hunters], the foot-prints and treadings of wild beaſts.

MARTERN, is about the bigneſs of a cat, having a longer body, but ſhorter legs, with a head and tail like a fox; its ſkin is commonly brown, white on the throat, and yellowiſh on the back; their teeth are exceeding white, and unequal, being unmeaſurably ſharp; the canine teeth both above and below hang out very long. At one year old it is called a cub; at two a martern.

This, and the wild cat, are a ſort of vermin which are commonly hunted in *England*, and are as neceſſary to be hunted as any vermin can be, for it is doubtful whether the fox or badger does more hurt than the wild cat, there being ſo many warrens every where throughout the kingdom of *England*, which are very much infeſted with the wild cat.

Experienced huntſmen are of opinion, that ſhe leaves as good a ſcent, and makes as great a cry for the time, as any vermin that is hunted; eſpecially the martern exceeds all other vermin for ſweetneſs of ſcent, and her caſe is a noble fur.

The caſe of the wild cat is not ſo beautiful, but is very warm, and medicinal for ſeveral aches and pains in the bones and joints: alſo her greaſe is good for ſinews that are ſhrunk.

Theſe two chaſes are not to be ſought for purpoſely, unleſs they are ſeen where they prey, ſo that they may go readily to them; but if a hound happens to croſs him, he will hunt it as ſoon as any chaſe, and make a noble cry as long as they ſtand up; when they can do it no longer, they will take to a tree and ſo deceive the hounds; but if the hounds hold in to them, and will not give it over ſo, then they will leap from one tree to another, and make a great ſhift for their lives, with much paſtime to the huntſman.

When they are killed, you muſt hold them upon a piked ſtaff, and halloo in all your hounds, and then reward them with ſome meat, for the fleſh of theſe vermin is bad for hounds.

MARTINGAL, a thong of leather faſtened to one of the girths under the belly of a horſe, and at the other end to the muſſroll, to hinder him from rearing.

MASH, a drink given to a horſe, made of half a peck of ground-malt put into a pail, into which as much

much ſcalding-hot water is poured as will wet it very well, when that is done, ſtir it about, till, by taſting, you find it as ſweet as honey; and when it has ſtood till it is lukewarm, it is to be given to the horſe. This liquor is only uſed after a purge, to make it work the better; or after hard labour, or inſtead of drink in the time of any great ſickneſs.

MASTIGADOUR, OR SLABBERING-BITT, is a ſnaffle of iron, all ſmooth, and of a piece, guarded with pater-noſters, and compoſed of three-halfs of great rings, made into demi-ovals, of unequal bigneſs, the leſſer being incloſed within the greateſt, which ought to be about half a foot high. A maſtigadour is mounted with a head-ſtall and two reins.

The horſe in champing upon the maſtigadour, keeps his mouth freſh and moiſt, by virtue of the froth and ſoam that he draws from his brain.

To put a horſe to the maſtigadour, is to ſet his croupe to the manger, and his head between two pillars in the ſtable.

Horſes that uſe to hang out their tongue, cannot do it when the maſtigadour is on, for that keeps their tongue ſo much in ſubjection, that they cannot put it out.

To MATCH, [amongſt Cock-maſters], to match cocks, is to ſee they be of an equal height, length and bigneſs in body.

To go to MATCH, [with Hunters]; a wolf at rutting-time is ſaid to go to match, or mate.

Of riding a Hunting-Match, or Heats for a Plate.

In order to ride to the beſt advantage, either a hunting-match, or three heats and a courſe for a plate,

The firſt thing requiſite is a rider, who ought to be a faithful one, in whom you can confide; and he ſhould have a good cloſe ſeat, his knees being held firm to his ſaddle-ſkirts, his toes being turned inwards, and his ſpurs outward from the horſe's ſides, his left hand govern the horſe's mouth, and his right commanding the whip; taking care, during the whole time of the trial, to ſit firm in the ſaddle, without waving, or ſtanding up in the ſtirrups, which actions do very much incommode a horſe, notwithſtanding the conceited opinion of ſome jockies, that it is a becoming ſeat.

In ſpurring his horſe, he ſhould not ſtrike him hard with the calves of his legs, as if he would beat the wind out of his body, but juſt turning his toes outwards, and bringing his ſpurs quick to his ſides; and ſuch a ſharp ſtroke will be of more ſervice towards the quickening of the horſe, and ſooner draw blood.

Let him be ſure never to ſpur him but when there is occaſion, and avoid ſpurring him under the fore-bowels, between his ſhoulders and girths, near the heart, (which is the tendereſt place of a horſe) till the laſt extremity.

As to the whipping the horſe, it ought to be over the ſhoulder on the near ſide, except upon hard running, and when you are at all, then ſtrike the horſe in the flank with a ſtrong jerk, the ſkin being tendereſt there, and moſt ſenſible of the laſh.

He muſt obſerve, when he whips and ſpurs his horſe, and is certain that he is at the top of his ſpeed, if then he clap his ears in his pole, or whiſks his tail, then he may be ſure that he bears him hard; and then he ought to give him as much comfort as he can, by ſawing his ſnaffle to and fro in his mouth, and by that means forcing him to open his mouth, which will comfort him and give him wind.

If in the time of riding there is any high wind ſtirring, if it be in his face, he ſhould let the adverſary lead, he holding hard behind him till he ſees an opportunity of giving a looſe; yet he muſt take care to keep ſo cloſe to him that his adverſary's horſe may break the wind from his, and that he, by ſtooping low in his ſeat, may ſhelter himſelf under him, which will aſſiſt the ſtrength of his horſe.

But, on the contrary, if the wind be at his back, he muſt riſe exactly behind him, that his own horſe may alone enjoy the benefit of the wind, by being as it were blown forward, and by breaking it from his adverſary, as much as poſſible.

In the next place, obſerve what ground your horſe delights moſt to run on, and bear the horſe (as much as your adverſary will give you leave) on level carpet ground, becauſe the horſe will naturally be deſirous to ſpeed him more freely thereon; but on deep earths give him more liberty, becauſe he will naturally favour himſelf thereupon.

If you are to run up hill, don't forget by any means to favour your horſe, and bear him for fear of running him out of wind; but if it be down hill, (if your horſe's feet and ſhoulders will endure it, and you dare venture your neck) always give him a looſe.

This may be obſerved as a general rule, that if you find your horſe to have the heels of the other, that then you be careful to preſerve his ſpeed till the laſt train-ſcent, if you are not to run a ſtraight courſe; but if ſo, then till the end of the courſe, and ſo to huſband it then alſo, that you may be able to make a puſh for it at the laſt poſt.

In the next place you are to acquaint yourſelf, as well as you can, of the nature and temper of your adverſary's horſe, and if he be fiery then to run juſt behind, or juſt cheek by joul, and with your whip make as much noiſe as you can, that you may force him on faſter than his rider would have him, and by that means ſpend him the ſooner; or elſe keep juſt before him, on ſuch a ſlow gallop, that he may either overreach, or by treading on your horſe's heels, (if he will not take the leading) endanger falling over.

Take notice alſo on what ground your opponent's horſe runs the worſt, and be ſure to give a looſe on that earth, that he being forced to follow you, may be in danger of ſtumbling, or clapping on the back ſinews.

In the like manner in your riding obſerve the ſeveral helps and corrections of the hand, the whip, and the ſpur, and when, and how often he makes uſe of them; and when you perceive that his horſe begins to be blown, by any of the former ſymptoms, as clapping down his ears, whiſking his tail, holding out his noſe like a pig, &c. you may then take it for granted that he is at the height of what he can do; and therefore in this caſe, take notice how your own rides, and if he runs more cheartfully and ſtrongly, without ſpurring, then be ſure to keep your adverſary to the ſame ſpeed,

without giving him eaſe, and by ſo doing, you will quickly bring him to give out, or elſe diſtance him.

Obſerve at the end of every train-ſcent what condition the other horſe is in, and how he holds out in his labour, of which you may be able to make a judgment by his looks, the working of his flank, and the ſlackneſs of his girths.

For if he looks dull, it is a ſign that his ſpirits fail him; if his flanks beat much, it is a token that his wind begins to fail him, and conſequently his ſtrength will do ſo too.

If his wind fails him, then his body will grow thin, and appear tuckt up, which will make his girths to the eye ſeem to be ſlack; therefore you may take this for a rule, that a horſe's wanting girting after the firſt ſcent, provided he were girt cloſe at his firſt ſtarting, is a good ſign; and if you find it ſo, you need not much deſpair of winning the wager.

After the end of every train-ſcent, and alſo after every heat for a plate, you muſt have dry ſtraw and dry cloths, both linen and woollen, which have been ſteeped in urine and ſalt-petre a day or two, and then dried in the ſun, and alſo one or two of each muſt be brought into the field wet; and after the train has been ended, two or three perſons muſt help you, and after the groom has, with a knife of heat, (as it is called by the Duke of *Newcaſtle*) which is a piece of an old ſword-blade, ſcraped off all the ſweat from the horſe's neck, body, *&c.* then they muſt rub him well down dry, all over, firſt with the dry ſtraw, and then with dry cloths, whilſt others are buſy about his legs, and as ſoon as they have rubbed them dry, then let them chaſe them with the wet cloths, and never give over till you are called by the judges to ſtart again.

This will render his joints pliant and nimble, and prevent any inflammation which might ariſe from an old ſtrain.

The next thing to be regarded, are the judges or triers office, who are to ſee that all things are ordered according to the articles agreed on, which to that end ought to be read before the horſes ſtart.

That each trier on whoſe ſide the train is to be led, according to the articles give directions for its leading, according to the advice of the rider, or his knowledge of the nature and diſpoſition of that horſe on which ſide he is choſe.

That each trier be ſo advantageouſly mounted, as to ride up behind the horſes (but not upon them) all day, and to obſerve that the contrary horſe ride his true ground, and obſerve the articles in every particular, or elſe not permit him to proceed.

That after each train-ſcent be ended, each trier look to that horſe againſt which he is choſen, and obſerve that he be no ways relieved but with rubbing, except liberty on both ſides be given to the contrary.

As ſoon as the time allowed for rubbing be expired, which is generally half an hour, they ſhall command them to mount, and if either rider refuſe, it may be lawful for the other to ſtart without him; and having beat him the diſtance agreed on, the wager is to be adjudged on his ſide.

The triers ſhall keep off all other horſes from croſſing the riders; only they themſelves may be allowed to inſtruct the riders by word of mouth how to ride, whether ſlow or faſt, according to the advantages he perceives may be gained by his directions.

If there be any weight agreed on, they ſhall ſee that both horſes bring their true weight to the ſtarting place, and carry it to the end of the train, upon the penalty of loſing the wager.

The ſame rules are to be obſerved, eſpecially this laſt, by thoſe gentlemen who are choſen to be the judges at a race for a plate, only they uſually ſtay in a ſtand, that they may the better ſee which horſe wins the heat.

In running for a plate, there are not ſo many obſervations to be made, nor more directions required, than what has been already given; only this, if you know your horſe to be tough at bottom, and that he will ſtick at mark, to ride him each heat according to the beſt of his performance, and avoid as much as poſſible either hiding at any particular horſe, or ſtaying for any, but to ride each heat throughout with the beſt ſpeed you can.

But if you have a fiery horſe to manage, or one that is hard mouthed and difficult to be held, then ſtart him behind the reſt of the horſes, with all the coolneſs and gentleneſs imaginable, and when you find that he begins to ride at ſome command, then put up to the other horſes, and if you find they ride at their eaſe, and are hard held, then endeavour to draw them on faſter; but if you find their wind begins to rake hot, and that they want a ſob, if your horſe be in wind, and you have a looſe in your hand, keep them up to their ſpeed till you come within three quarters of a mile of the end of the heat, and then give a looſe and puſh for it, and leave to fortune and the goodneſs of your horſe, the event of your ſucceſs.

When either your hunting-match, or the trial for the plate is ended, as ſoon as you have rubbed your horſe dry, clothe him up and ride him home, and the firſt thing give him the following drink to comfort him:

Beat the yolks of three eggs, and put them into a pint and a half of ſweet milk, warm it luke-warm, put to it three pennyworth of ſaffron, and three ſpoonfuls of ſallad-oil, and give it him in a horn.

Having done this, dreſs him ſlightly over with the curry-comb, bruſh, and woollen cloth; bathing the place where the ſaddle ſtood with warm ſack, to prevent warbles; waſhing the ſpurring places with urine and ſalt, and anoint them with turpentine and powder of jett, mixed together; litter the ſtable well, clothing him up as quick as poſſible, and let him ſtand for two hours.

Feed him with rye-bread, with a good maſh, giving him his belly full of hay, and what corn and bread he will eat.

Bathe his legs well with urine and ſalt-petre, leave him corn in his locker, and ſo let him reſt till the next morning, at which time order him as before directed in his days of reſt.

How to order a Horſe for a Match or Plate.

When you have either matched your horſe, or deſign to

to put him in for a plate, you ought to conſider that you ſhould reſerve a month at leaſt, to draw his body perfectly clean, and to refine his wind to that degree of perfection that is capable of being attained by art.

Take an exact view of the ſtate of his body, both outwardly and inwardly, whether he be low or high in fleſh, or whether he be dull and heavy when abroad, and if this has been cauſed by too hard riding, or by means of ſome greaſe that has been diſſolved by hunting, and has not been removed by ſcouring.

If he appear ſluggiſh and melancholy from either of theſe cauſes, then give him half an ounce of diapente in a pint of good old *Malaga* ſack, which will both cleanſe his body and revive his ſpirits.

For the firſt week, feed him continually with bread, oats, and ſplit beans, giving him ſometimes the one and ſometimes the other, according to what he likes beſt, always leaving him ſome in his locker to eat at leiſure when you are abſent; and when you return at your hours of feeding, take away what is left, giving him freſh, till you have made him wanton and playful.

To this purpoſe take notice, that though you ride him every day morning and evening, on airing, or every other day on hunting, yet you are not to ſweat him, or put him to any violent labour, the deſign of this week's ordering being to keep him in wind and breath, and to prevent purſiveneſs.

But take notice of this, that your oats, beans and bread, are now to be ordered after another manner than what they were before; for the oats muſt be well dried in the ſun, put into a clean bag and ſoundly beat, with a flail or cudgel, till you think they are hulled, then take them out of the bag and winnow them clean, both from hulls and duſt, and give them to your horſe as occaſion requires.

After the ſame manner muſt you order your beans, ſeparating them from the hulls, which are apt to breed the glut, which muſt either be thrown away, or given among chaff to ſome more ordinary horſe.

The bread, which was only chipt before, now the cruſt muſt be cut clean off, and be otherwiſe diſpoſed of, it being hard of digeſtion, and will be apt to heat and dry the horſe's body; and beſides, you muſt make a finer bread than before, as follows:

Take two pecks of beans, and a peck of wheat, let them be ground together, but not too fine, to prevent too much bran being in the bread; dreſs one peck of the meal through a fine range, and knead it up with new ale yeaſt, and the whites of a dozen new-laid eggs; bake this in a loaf by itſelf, but dreſs the reſt of the meal through a boulter, kneading it only with ale and yeaſt, and uſe it in all other points as the former: the peck loaf is to be given the horſe when you ſet him, and the other at ordinary times.

This bread aſſiſts nature, and much increaſes the ſtrength, courage, and wind of the horſe (provided there be added to it true labour) as any bread whatſoever.

Having treated of the condition of thoſe horſes which are melancholy and low of fleſh, I ſhall now ſpeak of thoſe which are briſk and lively: if your horſe when you lead him out of the ſtable, will leap and play about you, you muſt not only omit giving him the ſcouring of ſack and diapente, but any other whatſoever, for there being no foul humours, nor ſuperfluous matter left in his body, for the phyſic to work upon, it will prey upon the ſtrength of his body, and by that means weaken it.

If your horſe be engaged in a hunting-match, you muſt ſweat him twice this week but not by hunting him after the hare, but by train-ſcents, ſince the former on this occaſion may prove deceitful: for though the hounds ſhould be very ſwift, yet the ſcent being cold, the dogs will very often be at fault, and by that means the horſe will have many ſobs: ſo that when he comes to run train-ſcents in earneſt, he will expect eaſe for his wind.

Therefore lead your train-ſcents with a dead cat, over ſuch grounds as you are likely to run on, and beſt agree with the humour of your horſe; alſo chooſe the fleeteſt hounds you can get, and they will keep your horſe up to the height of his ſpeed.

As to the number of train ſcents that you ſhould ride at a time, they are to be ordered according to the match you are to run, or rather according to the ſtrength of your horſe, and ability for performing his heats; for if you labour him beyond his ſtrength, it will take him off his ſpeed, weaken his limbs, and daunt his ſpirit.

If you give him too little exerciſe, it will render him liable to be purfive, and full of ill humours, as glut, &c. and incline him to a habit of lazineſs, ſo that when he comes to be put to labour beyond his uſual rate, he will grow reſtive and ſettle.

But ſo far may be ſaid by way of direction, that if you are to run eight train-ſcents, and the ſtraight courſe, more or leſs, you are to put him to ſuch ſevere labour, not above twice in the whole month's keeping.

And if it be in the firſt fortnight it will be the better, for then he will have a whole fortnight to recover his ſtrength in again; as for his labour in his laſt fortnight, let it be proportionate to his ſtrength and wind; ſometimes half his taſk, and then three quarters of it.

Only obſerve, that the laſt trial you make in the firſt fortnight, be a train-ſcent more than your match, for by that means you will find what he is able to do.

As to the proportion of his exerciſe, twice a week will be ſufficient to keep him in breath, and you will not diminiſh or injure his vigour.

But if your hunting-match be to run fewer trains, then you may put him to his whole taſk the oftener, according as you find him in condition; only obſerve, that you are not to ſtrain him for ten days at leaſt, before he rides his match, that he may be led into the field in perfect ſtrength and vigour.

If you deſign your horſe for a plate, let him take his heats according to direction, only let him be on the

place, that he may be acquainted with the ground; and as for the hounds you may omit them, as not being tied up to their ſpeed, but that of your adverſary's horſe.

As to the number of heats, let them be according to what the articles exact; only obſerve, that, as to the ſharpneſs of them, they muſt be regulated according to his ſtrength, and the goodneſs of his wind.

When you heat him, provide ſome horſes upon the courſe to run againſt him; this will quicken his ſpirits and encourage him, when he finds he can command them at his pleaſure.

And here too you muſt obſerve the rule, not to give the horſe a long heat for ten days or a fortnight before the plate be to be run for; and let the laſt heat you give him before the day of trial be in all his cloaths, and juſt ſkelp it over, which will make him run the next time the more vigorouſly, when he ſhall be ſtript naked, and feel the cold air pierce him.

During this month, and on his reſting-days, and after his ſweats on heating-days (if there be any occaſion for ſweating him) you muſt obſerve the ſame rules which have been given for the firſt week of the third fortnight's keeping, only you muſt omit all ſcourings but rye-bread and maſhes, ſince your horſe being in ſo perfect a ſtate of body, has no need of any, except you ſhall know there is occaſion; and if the horſe proves thirſty, about eight or nine o'clock at night, you may give him the following julep, to cool him and quench his thirſt.

Make two quarts of barley water, three ounces of ſyrup of violets, two ounces of ſyrup of lemons, and having mixed them together, give them the horſe to drink, and if he refuſes, place it ſo that he may not throw it down, and let it ſtand by him all night.

During the laſt fortnight, you muſt give him dried oats that have been hulled by beating, and having waſhed half a ſtrike of oats in the whites of a dozen or twenty eggs, ſtir them together, letting them lie all night to ſoak, ſpread them abroad in the ſun the next morning, till they are as dry as they were at firſt, and ſo give them to your horſe: when theſe are ſpent, prepare another quantity after the ſame manner. This food is light digeſtion, and very good for his wind.

You muſt order his beans as before, but not give them ſo often, if he will eat his oats without them: as for his bread this time, make that of three parts wheat to one of beans, and order it as before directed.

If you find your horſe inclinable to be coſtive, give him oats waſhed in two or three whites of eggs and ale beaten together, to cool his body and keep it moiſt.

Give him no maſh for the laſt week, only the barley-water before directed, but let him have his fill of hay, till a day before he is to ride the match, when you may give it him more ſparingly, that he may have time to digeſt what he eas eaten, and then and not before you may muzzle him with your caveſſon; and be ſure that day, and not till the morning he is led out, to feed him as much as poſſible, for ſuch a day's labour will require ſomething to maintain ſtrength.

Therefore in the morning before you are to lead out, give him a toaſt or two of white bread ſteeped in wine, which will invigorate him, and when you have done lead him out into the field.

But if you are to run for a plate, which commonly is not till three o'clock in the afternoon, by all means have him out early in the morning to air, that he may empty his body, and when he is come in from airing, feed him with toaſts in wine; conſidering, that as too much fulneſs will endanger his wind, ſo too long faſting will cauſe faintneſs.

When he has eaten what you thought fit to give him, put on his caveſſon, and having afterwards well chafed his legs with piece-greaſe and brandy warmed together, or train oil (which likewiſe ought to be uſed daily at noon, for a week before the match, or longer, if you ſee cauſe) ſhake up his litter and ſhut the ſtable up cloſe, taking care that there is no noiſe made near him, and let him reſt till the hour comes that he is to go out into the field.

MAY-FLY, an inſect ſo called, becauſe it is bred in the month of *May*, of the water cricket, which creeping out of the river, turns to a fly. It uſually lies under the ſtones, near the banks, and is a good bait for ſome ſort of fiſh. *See* ANGLING.

MEASLES IN SWINE. This diſtemper is cauſed by ſurfeiting, through unwholeſome feeding, and is diſcovered by the coming of knots or pimples under the tongue. Remedy.

Waſh the ſwine with brine, or fair water, pretty warm, bruiſe garlic, to which add lemon-peel, ſteep it in very ſtrong vinegar, and give it him to drink. Or,

Dip a bruſh in cold water and rub him over, againſt the hair, as hard as may be, to ſtir the humour; then boil a handful of baum, and as much of parſley roots and rue, or carduus, in a gallon of clear water, with two ounces of alum and a handful of bay ſalt; keep him thirſty, and then give it him with a little wheat-bran, that he may ſwallow it eaſy.

MEAT FOR HOUNDS. The following is by Mr. BECKFORD ſtrongly recommended.

Mix an equal quantity of oatmeal and barley; let the oatmeal be boiled half an hour, and then mix the barley with it in the copper.

MEDICINE; the following is in high eſtimation for moſt diſeaſes incident to cattle.

Treacle one quarter of a pound, hempſeed a handful, elder leaves, ivy leaves, and featherfew, about a handful of each, loam a lump as big as a large egg, as much bay ſalt, and a little ſoot; put them in man's urine and ſtir the whole well together; make it warm, and give to any beaſt three ſpoonfuls of it, and after that give them a little tar.

Some give them in drink the dried flowers of wormwood mixed with ſalt.

MELANCHOLY IN ASSES: This is a diſorder with which the aſs is much afflicted, which makes him heavy, lumpiſh, and breathe with difficulty. Cure.

Take an ounce of liquorice, a handful of centaury, and three or four dried figs; boil them well in a pint

pint and a half of water, and give the liquid part, ſtrained out, warm to drink in the morning faſting, and if there is occaſion, repeat it twice or thrice.

MELANCHOLY IN HORSES, to purge;

Take ſcammony a drachm, the juice or ſeeds of black hellebore two ounces; diſſolve the former in and mingle the latter with a pint of warm ale, and give it faſting.

MELCERIDES IN HORSES, tumours ſo called, from their reſemblance to a honey-comb.

They attack the joints, and ſend forth a glewy matter like honey.

The way to cure them, is to burn them with red hot irons, in order to bring away all the matter, and to heal the ulcers with wax melted with hog's greaſe, and to waſh them with cold, but rather with ſea-water, if it can be got. Some recommend the burning them with braſs plates.

MELLIT, a diſtemper in a horſe, being a dry ſcab growing upon the heels of his fore-foot, which may be cured after the following manner:

Take common honey, half a pint, black ſoap a quarter of a pound, mingle them well together, adding four or five ſpoonfuls of vinegar, and the ſame quantity of alum, finely powdered, ſoaked in a hen's egg, with two ſpoonfuls of fine flour. Let all be well mixed together, clip away the hair from the part affected, and apply it to the ſorrance, after the manner of a plaiſter, and let it remain five days.

Then take it off, and having waſhed all the leg, foot, and ſore, with broth of powdered beef, rope up his legs with thumbands of ſoft hay, wetted in the ſame liquor, and it will effect a cure.

Whenever you dreſs the ſorrance, do not omit the pulling off the ſcab, or any cruſty ſubſtance that may be upon the ſore, and alſo to waſh it clean.

MELT, ON THE HEEL, IN HORSES, this is no other than a dry ſcab, growing on the heel, occaſioned ſometimes by the horſes' ſtanding wet and dry over long or unſeaſonably; and at other times, through corrupt blood ſettling there; remedy.

Take of black ſoap a quarter of a pound, honey the like quantity; diſſolve them in a pint of vinegar, then add the powder of burnt alum two ounces, and rye-meal a like quantity; waſh the ſorrance well with water and ſalt, and then ſpread the before-mentioned materials, and apply them plaiſter-wiſe, having firſt taken off the ſcurf or ſcab as clean as may be; and ſo for a week together continue the ſupplement. Or,

Take three ounces of caſtile-ſoap, a pound of *Engliſh* honey, alum two ounces, and of lime juice or verjuice a quarter of a pint, with half a handful of bean flour, incorporate them over a gentle fire, and having reduced them to a convenient thickneſs, bind a part of it with leather or thick linen upon the place grieved, ſuffering it, without renewal, to continue there for the ſpace of five days; and between each renewal, waſh the place well with beef broth, keeping his leg moiſt and roped, for ſome days after.

MELT IN SWINE, this diſeaſe is common among hogs, and often fatal. The creature appears giddy, and runs always on one ſide, lying alſo on that ſide, and rubbing it againſt walls. He pines away ſoon after, neglects his food, and ſhews the greateſt uneaſineſs. Cure.

Bruiſe ſome woody nightſhade, and preſs out the juice: to a pint of it, put half a pint of juice of wormwood, and a quarter of a pint of the juice of penny-royal. Put half a pint of this into a meſs of victuals once every day, till he is well, which will be known by his appetite.

MERLIN, a ſort of hawk the leaſt of all birds of prey, which reſembles the haggard falcon in plume, ſear of the foot, beak, and talons, and is much like her in condition.

MES-AIR is a manage half *terra a terra* and half corvets.

MESHES, the opening and vacancies in nets, or net-works.

MEW, a place where a hawk is ſet during the time ſhe raiſes her feathers.

MEWING (with Hunters) a term uſed of a ſtag, *&c.* ſhedding his horns: an old hart caſts his horns ſooner than a younger one, which is commonly in the months of *February* and *March*; but it is to be obſerved, that if a hart be gelded before he has a head he will never bear any, and if he be gelded after he has a head, he will never mew or caſt off his horns; again, if he be gelded when he has a velvet head, it will always be ſo, without fraying or burniſhing.

Theſe beaſts have no ſooner caſt their heads, but they immediately withdraw into thickets to hide themſelves, in ſuch convenient places where they may have ſtrong feeding and good water; but young harts do never betake themſelves to thickets till they have borne their third head, which is in the fourth year.

After mewing they will begin to button, in *March* or *April*; and as the ſun grows ſtrong, and the ſeaſon of the year puts forth the crop of the earth, ſo will their heads grow, ſo as to be ſummed full by the middle of *June*.

MICE, AND RATS, TO DESTROY.

Fill an indifferent pot with the ſoot or droſs of oil, and ſet it in a convenient place in their haunt; about the middle of the place, ſtrew about it ſoap boilers pot aſhes, and when the ſcent of the oil draws them to the pot, the ſcent of the aſhes will ſo ſtupify them, that they will lie on the floor rolling, that coming in any time you may take them up or deſtroy them. The ſmell of aſſafœtida will likewiſe drive them out of a houſe or granary: hemlock ſeed put in their holes, if they eat it, deſtroys them. Or,

Mix unſlaked lime and oatmeal together, or wheat-flour, and lay on bits of chips where they come.

MIDDLE-TEETH OF A HORSE, are the fore teeth that come out at three years and a half, in the room of other four foal-teeth, ſeated between the nippers and the corner teeth, from which ſituation they derive the title of middling.

There is one above and one below, on each ſide of the jaws. *See* TEETH.

MILK,

MILK, TO BREED, IN COWS;

If your cow chance to have a calf and be poor, or to calve before her time, and hath not milk for to keep her calf, you muſt give her good ſtore of maſhes of malt milk-warm; alſo give her every morning and evening a quart of ale, made into a poſſet, but take off the curd, and put in anniſeeds, cummin-ſeeds, lettuce-ſeeds, and coriander-ſeeds, all made into powder, and blend them with the poſſet; let them ſtand three hours blended together, and then give it the beaſt for four days one after another, and by often drawing of her paps, her milk will be ſure to increaſe in a ſhort time.

MILK IN EWES, to increaſe;

If you find their udders drying up, or that they give but little milk, change their paſture to ſuch as has ſhort and ſweet graſs, and better than that from which you remove them; and if the ground has a conveniency, drive them ſometimes on the hills, and at others into plain ground or valleys, for where the graſs is ſweeteſt and ſhorteſt they will eat with the beſt appetite: and when you bring them home mingle with their graſs or ſhort hay dill vetches and anniſeeds, and this will reſtore and increaſe their milk.

MILT-PAIN IN SWINE. When this pain is contracted, you will perceive the hog to go reeling and ſideling. To cure which,

Boil wormwood and honey in fair water, and ſo give it to drink.

The MINNOW, is a fiſh without ſcales, and one of the leaſt of fiſhes, but (in the opinion of ſome) for excellency of meat, he may have been compared to any fiſh of the greateſt value and largeſt ſize: the ſpawners are uſually full of ſpawn all the ſummer long, for they breed often, as it is but neceſſary, being both prey and baits to other fiſh.

They come into the river generally about *March* and *April*, and continue there till the cold weather ſtrikes them into their winter quarters again.

This fiſh is of a greeniſh colour, or wavy ſky-coloured, his belly is very white, but his back is blackiſh; he will bite ſharply at a worm.

Anglers find them oftener than they deſire; they ſeldom frequent deep places. It is a fiſh not at all curious of his feeding, for any bait pleaſes him, if he can but ſwallow it; he will ſtrain hard for what he cannot gorge.

The chief food he loves, is a ſmall red worm, waſps, or cad-baits.

MOLES IN THE FIELDS, may be deſtroyed by taking a head or two of garlic, onion, or leek, and put into their holes, and they will run out as if frighted, and you may with a ſpear or dog take them.

Or, pounded hellebore, white or black, with wheat flour, the white of an egg, milk and ſweet wine or metheglin, make it into a paſte, and put pellets as big as a ſmall nut into their holes, they eat it with pleaſure, and it will kill them.

In places you would not dig nor break much, the fuming their holes with brimſtone, garlic, or other unſavoury things, drives them away; and if you put a dead mole into a common haunt it will make them abſolutely forſake it.

Or, take a mole ſpear or ſtaff, and where you ſee them caſt, go lightly; but not on the ſide betwixt them and the wind, leſt they perceive you; and at the firſt or ſecond putting up of the earth, ſtrike them with your mole-ſtaff downright, and mark which way the earth falls moſt: if ſhe caſts towards the left hand, ſtrike ſomewhat on the right hand, and ſo on the contrary to the caſting up of the plain ground, ſtrike down, and there let it remain: then take out the tongue in the ſtaff, and with the ſpattle or flat edge dig round about your grain to the end thereof, to ſee if you have killed her; and if you have miſſed her, leave open the hole, and ſtep aſide a little, and perhaps ſhe will come to ſtop the hole again, for they love but very little air, and then ſtrike again; but if you miſs her, pour into her hole two gallons of water, and that will make her come out for fear of drowning. Mind them going out of a morning to feed, or come home when fed, and you may take a great many.

MOLTEN GREASE, is a fermentation or ebullition of impure humours, which precipitate and diſembogue the guts, and oftentimes kill a horſe.

This diſeaſe does not commonly ſeize upon any but over-fat horſes, over-rid in hot-weather. *See* GREASE.

MONTOIR, OR HORSE-BLOCK, is a word derived from *Italy*, where the riding-maſters mount their horſes from a ſtone as high as the ſtirrups, without putting their foot into the ſtirrups.

In *France* no ſuch thing is uſed, but yet the word montoir is there retained, and ſignifies the poiſe or reſt of the horſeman's left foot upon his left ſtirrup.

MONTOR A DOS, OR, A POIL; a *French* expreſſion, ſignifying, to mount a horſe bare backed, or without a ſaddle.

MOON-EYES; a horſe is ſaid to have moon-eyes when the weakneſs of his eyes increaſes or decreaſes, according to the courſe of the moon; ſo that in the wane of the moon his eyes are muddy and troubled, and at new moon they clear up, but ſtill he is in danger of loſing his eye-ſight quite. *See* EYES OF A HORSE.

MOOR's HEAD, implies the colour of a *Roan* horſe, who beſides the mixture or blending of a grey and a bay, has a black head, and black extremities, as the mane and tail. *See* ROAN.

MORTIFICATION. A mortification may happen on any part of the body, and in any age: but if aged horſes are the ſubjects they rarely recover.

A mortification in its beginning is called a gangrene; its ſigns are a ſudden, but a violent inflammation, with pain; a deep red colour inclined to a purple or a lead-colour, &c. to black.

On the firſt appearance of theſe ſymptoms, make ſcarifications to the quick, then rub the part with the following embrocation:

Take

Take oil of turpentine, four ounces, tincture of myrrh and aloes, one ounce; mixed.

Or, inſtead of this embrocation, rub the part with ſpirit of wine.

Give one of the following balls three times a day:

Take of Peruvian-bark, four ounces; Virginian ſnake root, two ounces; camphor, two drachms; mix them well, and make them into four balls.

MOTION; this horſe has a pretty motion.

This expreſſion implies the freedom of the motion of the fore-legs, when a horſe bends them much upon the manage; but if a horſe trots quite out, and keeps his body ſtraight, and his head high, and bends his fore-legs handſomely, then to ſay he has a pretty motion with him, implies the liberty of the action of the fore-hand.

MOURNING OF THE CHINE. *See* CHINE, MOURNING OF.

MOUTH OF A HORSE, ſhould be moderately well cloven, for when it is too much, there is more difficulty to bitt a horſe ſo as that he may not ſwallow it, as horſemen term it.

And if he has a little mouth, it will be difficult to get the mouth of the bitt rightly lodged therein.

A horſe, to have a good mouth, ſhould have a well raiſed neck, and if it be ſomewhat large and thick, it ought to be at leaſt well turned, his reins ſtrong and well ſhaped, and legs and feet likewiſe.

If all theſe prove right, no doubt but the horſe has a very good mouth; but if his jaw-bones be too cloſe, and he have alſo a ſhort and thick neck, ſo that he cannot place his head right, his having a good mouth will avail but little, becauſe no uſe can be made of it.

The compliance and obedience of a horſe, is owing, partly, to the tender or quick ſenſe of his mouth, which makes him afraid of being hurt by the bitt, and partly by the natural diſpoſition of his members, and his own inclinations to obey.

The mouth is called ſenſible, fine, tender, light, and loyal.

Your horſe has ſo fine a mouth, that he ſtops if the horſeman does but bend his body behind, and raiſe his hand, without ſtaying for the pull or check of the bridle.

A mouth is ſaid to be fixed and certain, when a horſe does not chack or beat upon the hand.

A freſh, foaming mouth.

A ſtrong, deſperate, ſpoiled mouth; a falſe mouth is a mouth that is not at all ſenſible, though the parts look well, and are well formed.

A mouth of a full *appui*, or reſt upon the hand, is one that has not the tender nice ſenſe of ſome fine mouth, but nevertheleſs has a fixt and certain reſt, and ſuffers a hand that's a little hard, without chacking or beating upon the hand, without bearing down or reſiſting the bitt, inſomuch that he will bear a jerk of the bridle without being much moved.

If you go to the army provide yourſelf a horſe with a mouth that bears a full reſt upon the hand, for if you take one of a fine, nice, tender mouth, and another horſe comes to ſhock or run againſt him in a fight, he will be apt to riſe upon his two hind feet, which a horſe of a harder mouth would not do. *See* APPUI.

A mouth that bears more than a full reſt upon the hand, implies, a horſe that does not obey but with great difficulty.

You will readily ſtop this horſe, for his mouth is above a full *appui* upon the hand. *See* APPUI.

Diſorders in the Mouth of a Horſe, viz. the *Lampas*, from the Latin *Lampaſcus*, is an inflammation and tumour of the firſt bar of a young horſe's mouth, adjoining the upper fore-teeth, which prevents his chewing. LA FOSSE and BRACKEN were in an error to deny the exiſtence of this inconvenience. GIBSON aſſerts that burning and uſual repellents are apt to prevent a diſcharge, and prejudice the eyes, but it is adviſable to be deferred a week, giving during the interval ſcalded maſhes and warm gruel, and bleeding if indicated; ſhould the inflammation ſtill continue, cauterize the tumid parts lightly, without penetrating deep enough to ſcale off the thin bone ſubjacent of the upper bars. Waſh with ſalt and water firſt, and afterwards heal with a mixture of *French* brandy, *Red Port* wine, and honey.

Relaxation and Swelling of the Palate from Cold. Uſe the above mixture, with a little addition of pepper, ginger, or ſpirit of ſal ammoniac.

Bloody Chinks, or Chops in the Palate, from thiſtles, whins, or other prickly feed. Examine and waſh with ſalted water, or ſalt and vinegar, uſing the mixture afterwards. From neglect, the roof of the mouth may be inflamed and ulcerated, puncture with a ſmall pointed cautery.

Giggs, Bladders, or Flaps in the Mouth, theſe are the old terms for ſoft tumours, or puſtules with black heads, growing in the inſide of the lips, level with the great jaw-teeth; in ſome cart-horſes they have been known to equal the ſize of a walnut; and at any ſize are painful, and prevent maſtication. Draw out the tongue, and uſe the knife or cautery, cleanſing and healing as above. The *Camery* or *Frounce*, or ſmall indurated tumours upon the palate, cure as above.

Barbs or *Paps*, are ſmall excreſcences under the tongue, which appear by drawing it aſide; when preternaturally enlarged, cut them cloſe.

Canker in the Mouth, or rather ulcers with little white ſpecks proceeding from gigs and warts neglected; the cautery moderately heated is perhaps the beſt remedy: it is ſuppoſed the mixture with the addition of ſal ammoniac, ſharp enough, but if not, apply ſeveral times a day, Egyptiacum and tincture of myrrh, ſharpened with oil of vitriol; or, ſublimate water; or, burnt alum, honey, and tincture of roſes.

Hurts in the Tongue and Mouth, from ſharp or heavy bitts. Touch ſeveral times a day with the firſt mixture, to which tincture of myrrh may be added, proceeding with the ſharper applications ſhould they be neceſſary. Examine the jaw-bone, which is too often injured likewiſe, carefully removing any ſplinters. The galling of the bitts and trappings is frequently the occaſion of thoſe many inſtances we have of horſes breaking away in ſingle harneſs. Very frequently the brydoon is ſo tight, that the horſe's jaws are drawn up as if with a pulley,

pulley, the animal half-choked, and kept in conſtant pain. Frequently in the change of a horſe, no care is taken to change the bitt, which if not ſufficiently wide, holds the mouth perpetually ſcrewed up as in a vice. It is a material part of the duty of grooms and horſe-keepers, often to inſpect the inſide of the mouths of their horſes.

Wolves Teeth are ſaid to be two ſmall ſuperfluous ones, growing in the upper jaw next the grinders, and to be very painful to the horſe; it was the old practice to looſen and wrench them out with a mallet and carpenter's gouge, by which rough operation the jaw was often materially injured; granting the neceſſity of their extraction, it behoves the veterinary ſurgeon to furniſh a milder and ſafer method. In general, all teeth of irregular growth, whether inwards or outwards, which, during maſtication, prick and wound either the tongue, gums, or lips, are ſtyled wolves teeth. The upper teeth of old horſes ſometimes over-hang the nether ſo far, as to wound the lips. In every caſe of this kind, the file is the moſt proper inſtrument; firſt a rough, then a ſmooth or poliſhing one, the mouth clean waſhed after the operation, with ſalted water warm. For looſe teeth, the gums being ſwollen, puncture with a lancet, and waſh with a decoction of oak-bark, honey, and ſage, adding a ſmall quantity of diſtilled vinegar.

MOUTH, HEAT IN, IN HORSES, this diſorder is accompanied with dryneſs, and proceeds from the heat of the ſtomach, by ſurfeits, over-heating, or a conſuming quality; and if not timely taken notice of, produces the infectious humour that creates the canker.

Bleed the veins in the lips, which you may cauſe to appear by bending them the contrary way; and then waſh them with ſalt, and vinegar, giving the horſe water to drink wherein coltsfoot has been boiled, or fenugreek-ſeed, with his provender.

MULE, is of two ſorts, the one engendered of a horſe and a female aſs, and the other of a male aſs and a mare.

The firſt kind are generally very dull, as partaking too much of the aſs, nor are they ſo large as the ſecond, for which reaſon the latter are much more uſed and propagated.

As they are a very uſeful creature, handſome of ſhape, and good for journeys and many labours, ſo they are much eſteemed and taken care of in other nations, and might be improved here to better advantage than they are, being of an eaſy gentle nature, and for the eaſineſs of their pace moſt proper for women to ride on. They are cheap kept, and will travel very far in a day, and that with a ſpare diet.

Theſe creatures breed not of themſelves becauſe they are got of different kinds and diſagreeing ſeeds, as of an aſs or horſe, or an aſs leaping a mare; and the latter of theſe produces the beſt, becauſe the mare being larger, is more capable of giving the foal nouriſhment and ſtrength, to grow up and thrive the better.

The aſs ſtallion muſt be choſen large and well coloured, and not above three years old: and the mare not of the largeſt ſize, for that will hinder the performance: let her be under four years old; and when ſhe has conceived ſhe will go eleven months, or ſomewhat more ſometimes, and ſometimes bring forth ſooner. During the time of her going with foal, ſhe muſt be gently uſed and well fed, moderately laboured, but reſt when near the time of her foaling.

How to make the Mare take the Aſs, and how to order her in Foaling, &c.

If you find an unwillingneſs in the mare to receive the aſs-ſtallion, you muſt at firſt put an indifferent aſs colt to woo her, that if ſhe at the firſt onſet beats him, it may be no manner of diſcouragement to the ſtallion you intend; and when he has tired her out with wooing, ſhe will yield to him that is laſt put to her; but it muſt be a young mare that has never been covered by a horſe, for elſe ſhe will not ſuffer the aſs to cover her, unleſs very aged, which is not to the purpoſe.

When you perceive ſhe has been well covered, put the aſs away, leſt by often leaping he makes her miſcarry. Uſe her as I have intimated; gently for ſome time, and then let her labour be but indifferent; keep her high, and when near foaling, let her reſt in good houſing or pleaſant paſture, as ſeaſon requires, but not a place where ſhe may leap and be hurt by ſtraining, or cauſe a miſcarriage, or bruiſe the foal in her.

When ſhe has foaled, take the colt from her, and put it to a milch mare in a dark place till ſhe becomes acquainted with it, and then you may let her run with it in any pleaſant paſture till ſuch time as it is fit to be weaned; after weaning give it milk for ſome time that it may not pine away.

Of Houſing and Ordering in Riding.

Since theſe creatures are more tender than either horſe or aſs, they muſt not be kept abroad in wet or cold weather, but lodged in warm litter, and not backed, or put to hard labour before three years old, for fear of ſtunting them, or cauſing diſeaſes. They are very long lifed, if we credit PLINY, for he allows them to live fifty years. They may be either rid or put to plough, and are ſerviceable in many caſes, but are not over ſtrong, therefore too hard labour deſtroys them.

MULES, *ſee the Article* SCRATCHES IN FARRIERY.

MURRAIN IN CATTLE, this diſeaſe cometh ſeveral ways; firſt it comes from rankneſs of blood or feeding; from the corruption of the air, or the infection of other cattle. You may find this diſeaſe by their carriage, that is, they will foam at the mouth, and blow very thick and ſhort; their heart and lights will beat very ſore, and ſometimes their face and chaps will ſwell, and their eyes water.

Firſt let all your beaſts blood, both ſick and ſound, and give to the ſick ſome rue, fetherfue, ſage, hyſſop, thyme, marjoram, marigolds, fennel, tanſey, lavender, and ſpike, of every one a ſmall handful: boil all the herbs in ſpring water, boil them from a gallon to a quart, and then ſtrain the liquor forth; put thereto for every beaſt a pint of ſtrong ale, and add to the juice and ale ſome long pepper and green anniſeeds, peaſe, bay-ſalt, treacle, and liquorice-powder, and butter. Pound all theſe ſpices, and put them to the juice of the

the herbs, and ſo give to the ſick a full pint, but to the ſound half a pint. Or,

Firſt, you muſt take for every beaſt a quart of old waſh, and a good quantity of hens dung, and lay the hens dung to ſteep eight or ten hours: then ſtrain the dung forth, and break to every beaſt two rotten eggs into the aforenamed juice, and give to every one two pennyworth of ſpikenard; then blend all theſe together, and give it the beaſt: but firſt let blood, both ſick and ſound, and ſeparate the ſick from the ſound. Bleed and drench both horſe and ſwine, for they are both apt to take the diſeaſe. Bury the dead carrion deep in the ground, that the hogs cannot pull it forth to feed on it, for they are thoſe that carry the diſeaſe from one place to another; and be careful where you lay the murrain hide of a horſe, or how you take off the hide while the beaſt is hot, for it is infectious: the ſafeſt way is to bury the beaſt, hide and all. Or,

Take fennel ſeed, the roots of angelica, and ſea thiſtle; ſtamp and infuſe them over a gentle fire, with red-wine and ale; give the liquid part hot, and keep the beaſt warm, and two or three hours after make him a maſh of wheat, boiled in beer.

MURRAIN, IN GOATS, this diſorder is very fatal to them, making them ſuddenly drop down dead, when they ſeem healthy: therefore it is fit you keep the following remedy by you, for fear of ſurpriſe, viz.

Take baum, vervain, and rue, of each a ſmall handful, the huſks of green walnuts, if they may be had, or elſe the leaves or bark of that tree: boil them in cyder or verjuice, which you can ſooneſt get, ſtrain out the liquid part, and infuſe mithridate or London treacle, half an ounce into a quart, ſo give a pint warm morning and evening. But to have this in readineſs for more than one or two, when you ſee this diſtemper begin, you make a greater quantity, and bottle it up for uſe.

MURRAIN, IN SHEEP, the cure:

Make holes in their ears with an awl, and put in the root of ſweet-wort; then give an ounce of the oil of turpentine in a quarter of a pint of white wine, (or for want of it, in vinegar) and ſprinkle the ſheep with water wherein fennel ſeeds have been boiled: and this may be ſafely given and uſed for the murrain of the lungs, occaſioned by extreme drought, or want of water in the hot ſeaſons.

MURRAIN, IN SWINE: this diſorder ariſes from bad food, and want of water. The firſt ſign of it is a running of the eyes, the head ſwells, and the hog carries it on one ſide; after this he grows hot and weak, refuſes his victuals, and, if not cured, will pine away till he dies.

Diſſolve in a pint of ale half an ounce of Venice treacle, an ounce of bole ammoniac, and half a drachm of ſaltpetre: add to this four ounces of powder of grey ground liverwort. Mix it all with a good hot meſs of victuals, and give it early in the morning. When the hog has eat as much as he likes, take it away; then two or three hours after ſet it before him again, and give him no other food. This will bring him to be much better in a few days; and after that, a ſmaller quantity of medicine muſt be mixed with his victuals, but he muſt have ſome of it in all he eats, till perfectly recovered. Or,

Take the roots of garden or water lilies, mix a quarter of the juice with twice as much ſallad oil, and an ounce of oil of turpentine, and as much turmerick finely beaten in powder: give it him in cold water, about a pint; and, if he grows hot and feveriſh upon it, bleed him under the tongue, ears, and tail; boil mallows and groundſel in his waſh, and add a little bay ſalt.

MURRAIN-WATER, IN CATTLE, &c. This diſeaſe comes from rankneſs of blood, and chiefly it takes thoſe that are young betwixt one year old and three. This diſeaſe is eaſy to find out, for they ſwell on the back and both ſides of the chine, and if they have not preſent help, they will die; the hide will be puffed up to the ſhoulder-blade on both ſides.

You muſt firſt let them blood in the neck, and give them ſome fenugreek, turmerick, long pepper, and ſpikenard, all made into powder, and give it them in ale or beer milk-warm. And for the ſwelling on the back, you muſt take three handfuls of ſalt, a pint of ſpring-water, and a pint of white-wine vinegar, alſo a little alum, but pound it, and put them all together, beating it with a ſlice till it be white like milk; then bathe the ſwelled places very well, and it will dry up the rheum.

And for the preventing of this diſeaſe, bleeding is beſt in time; alſo, if they be ſwelled very much on the back, rowel them on both ſides behind the ſhoulder-blade againſt the heart, and put in ſome hair to keep the holes open, and they will amend preſently.

MUTE, (amongſt Hunters) hounds or beagles are ſaid to run mute, when they courſe along without opening or making any cry.

MUTE, OR ORDURE, dung, more eſpecially of birds.

NAG, LITTLE NAG, OR TIT, is a horſe of a ſmall low ſize.

NARROW, a horſe that narrows, is one that does not take ground enough; that is, does not bear far enough out to the one hand or to the other.

NAVEL GALL, is a bruiſe on the back of a horſe, or pinch of a ſaddle behind, which if left alone long will be hard to cure.

The hurt obtains this name, becauſe it is over-againſt the navel.

The cure: take oil of bay, oil of coſtus, fox-greaſe, oil of ſavin, of each an ounce, a handful of great garden worms, ſcour them with ſalt and white wine, and put all the ingredients together into an earthen pipkin, ſtop or cover it very cloſe, and boil them well; then add an ounce and a half of ſallad oil; ſet it upon the fire again, and boil it till it becomes a perfect ointment, which ſtrain into a gallipot: warm it when you uſe it, and ſo dreſs the ſorrance with lints or hards dipt in it.

If the place be only ſwelled, and the ſkin not broken, then rub it with your hand, or a rag dipped in brandy, and it will take it down.

NECK OF A HORSE, ſhould be lean, and but little fleſh upon it; and to be well ſhaped, it ſhould, at its go-

ing from the withers, riſe with a ſlope upwards, diminiſhing by degrees toward the head.

In mares, it is a good quality to have their necks ſomewhat groſs, and charged with fleſh, becauſe their necks are generally too fine and ſlender.

Deer necks, or cock-throppled, are thoſe, in which the fleſh that ſhould be next the mane, is ſet quite below, and next the throat, which renders the neck ill-ſhaped and ugly.

A well-ſhaped neck contributes very much to the making him light or heavy of the hand, according as it is fine or coarſe.

NECK, OR THROAT, ſwelling of the, in SWINE. When the ſwelling riſes, which is often dangerous, bleed him under the tongue and tail, make a plaiſter of the yolks of eggs, bees-wax, wheat-flour, and Burgundy pitch; put coriander ſeeds and ſliced horſe radiſh, in the trough amongſt his meat, which muſt be bran and waſh very warm.

NEEZINGS; in order to purge a horſe's head when it is ſtopped with phlegm, cold, and other groſs humours, and to make him neeze; there is nothing better than to take a branch of pellitory of *Spain*, and tying the ſame to a ſtick, put it up his noſtrils, and it will operate upon him without hurt or violence.

NEIGHING, is the cry of a horſe. Such a horſe neighs.

NET-MAKING; by nets here is meant, ſuch as are uſeful to take fowl with; for the making of which, the inſtruments or tools required, are wooden needles, whereof you ſhould have about half a dozen of divers ſorts, ſome round, and others flat; alſo, a pair of flat, round-pointed ſciſſars, and a wheel to wind off the thread; the packthread muſt be the beſt and eveneſt that can be got, greater or ſmaller, according to the fowl you deſign to take: the meſhes muſt be about two inches from point to point, for the larger they are, it is the better to entangle fowl.

But the nets muſt be neither too deep nor too long, or that will render them troubleſome to manage, but let them be well verged on each ſide with a long twiſted thread.

As for the colouring, the ruſſet ones are made ſo by putting them into a tanner's pit, where they muſt lie till they are well coloured; and this tincture is alſo an excellent preſerver of them.

To make them green, chop and boil ſome green wheat in water, and rub your nets therewith, letting them lie in it twenty-four hours.

The yellow colour is done by ſteeping the net in the juice of celandine, and then drying it in the ſhade, for it muſt not be over bright, but of the colour of ſtubble in harveſt time, for which ſeaſon it is proper.

For preſerving them, care muſt be had to keep them dry, for which end hang them abroad in the ſun, whenever you have uſed them in the dew or rain; and ſee the leaſt rent or breach be mended upon the firſt diſcovery; hang them at a diſtance from the wall, leſt they be injured by rats and mice.

The readieſt way of taking great fowl with nets, is the making of the nets, which muſt be of the beſt packthread, with great and large meſhes, at leaſt two inches from point to point; for the larger the meſhes are, (ſo that the fowl cannot creep through them) the better it will be, for they entangle them the more certainly.

Let not the nets be above two fathoms deep, and ſix in length, which is the greateſt proportion that a common man is able to overthrow. Verge the nets on the outſide with very ſtrong cord, and extend it at each end upon long poles made for that purpoſe.

Being provided with nets, obſerve the haunts of fowls, or their morning and evening feeding-places, coming to them, at leaſt two hours before thoſe ſeaſons, and ſpreading the net ſmooth and flat upon the ground, ſtaking down the two lower ends firm; let the upper ends ſtand extended upon the long cord, the farther end thereof being ſtaked faſt down to the earth, two or three fathom from the net, and let the ſtake which ſtaketh down the cord, ſtand in a direct and even line with the lower verge of the net, ſtill obſerving the diſtance; then the other end of the cord, which muſt be at leaſt ten or twelve fathom long, the fowler muſt hold in his hand, at the uttermoſt diſtance aforeſaid, where he ſhould make ſome artificial ſhelter either of graſs, ſods, earth, or ſome ſuch like matter, where he may lie out of the ſight of the fowl.

Take care that the net may lie ſo ready for the game, that upon the leaſt pull, it may riſe from the earth, and fly over.

Strew over all the net, as it lies upon the ground, ſome graſs, that you may hide it from the fowl. It will alſo be convenient to ſtake down a live hern near your net, or ſome other fowl formerly taken, for a ſtale.

When you ſee a good number of fowls come within the verge of the net, draw the cord ſuddenly, and caſt the net over them: continue your ſport till the ſun be near an hour high, and no longer, for then their feeding is over for that time; but you may go again in the evening, from about ſun-ſet till twilight.

By this means you may take, not only great quantities of large wild fowl, but alſo plovers.

To take ſmall water-fowl with nets, make your nets of the ſmalleſt and ſtrongeſt packthread, but the meſhes muſt not be near ſo big as thoſe for larger fowl, about two feet and a half, or three feet deep.

Line theſe nets on both ſides with ſmall nets, every meſh being about an inch and a half ſquare, each way, that as the fowl ſtriketh either through them or againſt them, ſo the ſmaller net may paſs through the greater meſhes, and ſo ſtraiten and entangle the fowl.

Theſe nets are to be pitched for every evening flight of fowl, before ſun-ſet, ſtaking them down on each ſide of a river, about half a foot within the water, the lower ſide of the net being ſo plumbed, that it may ſink ſo far and no farther: place the upper part of the net ſlant-wiſe, ſhoaling againſt the water, yet not touching the water by near two feet, and let the ſtrings which ſupport this upper ſide of the net, be faſtened to ſmall yielding ſticks, pricked in the bank, which, as the fowl ſtrikes, may give liberty to the net to run and entangle them.

Thus place ſeveral of theſe nets over different parts of the river, about twelve ſcore fathom one from another, or as the river or brook will allow; and you may depend upon it, that if any fowl come

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on the river that night, you will have your ſhare of them.

And that you may attain your end the ſooner, take a gun, and go to all the fens and plaſhes that are at a diſtance from your nets, and fire three or four times, which will ſo affright the fowl, that they will fly to the rivers; then plant your nets upon theſe fens and plaſhes.

In the morning, go firſt to the river and ſee what fowls are caught there, and having taken them up with the nets, if you eſpy any fowl on the river, diſcharge your gun, which will make them fly to the fens and plaſhes; where go to ſee what are taken. By this means you will ſcarce fail of catching ſome, although there ſhould be but very few abroad.

NIGHT-ANGLING. *See* ANGLING.

NIGHTINGALE, a ſmall bird, in bigneſs much reſembling a lark; it has a brown back, and is aſh-coloured towards the belly.

The nightingale has the ſuperiority above all other birds, in reſpect to her ſinging with ſo much variety, the ſweeteſt and moſt melodiouſly of all others.

Nightingales appear in *England*, about the beginning of *April*, none as yet knowing where their habitations are during the winter ſeaſon; and they uſually make their neſts about a foot and a half, or two feet above ground, either in thick quick-ſet hedges, or in beds of nettles where old quick-ſet hedges have been thrown together, and nettles grown through; and make them of ſuch materials as the place affords; but ſome have found their neſt upon the ground, at the bottom of hedges, and amongſt waſte grounds: and ſome upon banks that have been raiſed, and then overgrown with thick graſs. As for the number of their eggs, it is uncertain, ſome having three or four, and ſome five, according to the ſtrength of their bodies; and thoſe that make their neſts in the ſummer, have ſometimes ſeven or eight; but they have young ones commonly in the beginning of *May*.

The nightingale that is beſt to be kept, ſhould be of the earlieſt birds in the ſpring, they become more perfect in their ſongs, and alſo hardier, for the old one has more time to ſing over, or continue longer in ſinging than thoſe that are later bred, and you may have better hopes of their living. The young ones muſt not be taken out of their neſts till they are indifferently well feathered, not too little nor too much, for if the laſt, they will be ſullen, and in the other caſe they are apt to die, and at the beſt they are as much longer in bringing up.

Their meat may be made of lean beef, ſheep's heart, or bullock's heart, the fat ſkin whereof that covers it, muſt firſt be pulled off, and the ſinews taken out as clean as poſſible; then ſoak a quantity of white bread in water, and chop it ſmall, as it were for minced meat, then with a ſtick take up the quantity of a grey pea, and give every one three or four ſuch gobbles in an hour's time, as long as they ſhall endure to abide in their neſts.

When they begin to grow ſtrong, and ready to fly out, put them into the cage with ſeveral perches for them to ſit upon, lined with ſome green baize, for they are at firſt ſubject to the cramp; and put ſome fine moſs or hay at the bottom of the cage, for them to ſit on when they pleaſe, always obſerving to keep them as clean as may be, for if they are brought up naſtily, they, as well as all other birds, will always be ſo; ſome ſuffer no day light to come to them only on one ſide; others, more curious, line their cages on three ſides with green baize.

For the diſeaſes incident to this delightful bird; as nightingales grow extraordinary fat, both abroad in fields, as well as in houſes where they are caged up, you are to obſerve, it is very dangerous when it begins to abate, if they do not ſing, therefore they muſt be kept very warm upon the falling of their fat, and muſt have ſome ſaffron given them in their meat and water: but when they are perceived to grow fat, they muſt be purged two or three times a week, with ſome worms that are taken out of pigeon-houſes, for four or five weeks together; and give them two or three ſpeckled ſpiders a day, as long as they laſt, which ſpiders are found in *Auguſt*. If they grow melancholy, put into their water or drinking-pot, ſome white ſugar-candy, with a ſlice or two of liquorice; and if they ſtill complain, put into their pot ſix or eight chives of ſaffron, continuing to give them ſheep's hearts and paſte, alſo three or four meal worms a day, and a few ants, and their eggs: farther, boil a new-laid egg very hard, mince it ſmall, and ſtrew it amongſt the ants and their eggs.

Nightingales that have been kept two or three years in a cage, are very ſubject to the gout, in that caſe you muſt take them out, and anoint their feet with freſh butter or capon's greaſe three or four days together, which is a certain cure.

The chief thing that cauſes moſt of the diſeaſes, is for want of keeping them clean and neat, whereby their feet become clogged, and their claws rot off, which brings the gout and cramp upon them; be ſure twice a week to let them have gravel about the bottom of the cage, which muſt be very dry when it is put in, as it will not then be ſubject to clog.

Theſe birds are alſo ſubject to apoſthumes and breakings out above their eyes and nebs, for which you are alſo to uſe butter and capon's greaſe. To raiſe nightingales when they are very bare, give them new eggs chopt very ſmall, amongſt their ſheep's heart and paſte, or hard eggs, and when they are recovered, bring them to ordinary diet again, that you may continue to maintain them in their former plight; but as ſoon as you perceive them growing fat, give them no more eggs.

There is another diſeaſe incident to thoſe birds, called the ſtraitneſs, or ſtrangling in the breaſt; which proceeds very often from want of care in preparing their food, by mixing fat meat therewith; and may be perceived by the beating pain they were not accuſtomed to, which abides in this part, and by his often gaping and opening his bill; it may alſo be occaſioned by ſome ſinew or thread of the ſheep's heart, (for want of ſhredding with a ſharp knife) that hangs in his throat, or that many times cling about his tongue, which makes him forſake his meat, and grow poor in a very ſhort time, eſpecially in the ſpring, and when he is in the ſong note; as ſoon as you perceive the ſymptoms, take him gently out of his cage, open his bill with a quill or

pin, and unlooſe any ſtring or piece of fleſh that may hang about his tongue or throat, and when you have taken it away, give him ſome white ſugar-candy in his water, or elſe diſſolve it and moiſten his meat with it, which will prove a preſent remedy.

All that is to be ſaid more concerning this melodious bird, is touching the length of his life; ſome live but one, ſome three, ſome five, and others unto eight and twelve years; and they ſing rather better and better for the firſt eight years, but then they decline it by degrees; but if they have good keepers, it will prolong their lives three or four years; and where there is one kept in a cage until that age, an hundred die, yet the care of ſome have been ſuch, that it has been known nightingales have lived to be fifteen years old, and to continue ſinging, more or leſs, for the moſt part of the time. *See* PASTE FOR BIRDS.

NIGHT-HOOKS ſhould be thus laid: procure a ſmall cord ſixteen yards long, and at equal diſtances tie to it five or ſix hempen lines, of the thickneſs of the trouling-line, about eighteen inches long apiece, faſtening them in ſuch a manner as you may eaſily remove or put them to again. To each of theſe whip a hook, and bait it with a minnow, loach, or bull-head, his gill fins cut off; or, for want of them, with a ſmall gudgeon, a ſmall roach, a piece of ſeven eyes of about an inch, and the brighteſt coloured you can get, which is much the moſt preferable baits for eels, or one of the ſmall brood of eels, or with beef, or the pith and marrow in an ox or cow's back bone. If you bait with any fiſh, put the point of the hook in at the tail and out at the mouth, the head of the fiſh reſting on the hook's bent; and cover the point of the hook with a ſmall worm: then at one end of the cord faſten a ſtone or a lead weight of about two pounds, and throw it croſs the river in ſome ſtill deep, or at the tail or ſide of a deep ſtream. Faſten the other end to ſome bough or ſtick, on the water-bank you ſtand on; and in the morning you will ſeldom fail to find fiſh enſnared. Uſe a great fiſh needle to draw the line through the bait, and out at its tail, and then let it ſlip down to the hook's bent, the head being downwards, tying the tail to the line with thread, and the top of the hemp line to the cord.

Eels, chub, large trouts, and pike, are taken this way; but if you lay for pike, keep the bait with a float about a foot from the bottom. For other fiſh let it touch the bottom.

NIGHT-MARE. A malady incident to horſes as well as human bodies, proceeding from the melancholy blood oppreſſing the heart; it will cauſe the horſe to ſweat more in the night than in the day, and thereby deprive him of his reſt.

You may diſcover it by obſerving him in the morning, whether he ſweats on the flanks, neck, and ſhort ribs, which are ſure indications of it.

For the cure. Take a pint of ſallad oil, a quarter of a pound of ſugar-candy, put into them a handful of ſalt, mix them well together, warm them blood-warm, and give it the horſe two mornings.

NIPPERS are four teeth in the fore-part of a horſe's mouth, two in the upper and two in the lower jaw: a horſe puts them forth between the ſecond and third years. *See* TEETH.

NIPPERS. Smiths or farriers nippers, are the pincers with which they cut the nails they have drove in, before they rivet them, and which they uſe in taking off a ſhoe.

NOSE-BAND, OR MUSROLL, is that part of a head-ſtall of a bridle that comes over a horſe's noſe.

NOSTRILS OF A HORSE, ſhould be large and extended, ſo that the red within them may be perceived, eſpecially when he ſneezes: the wideneſs of the noſtrils does not a little contribute to the eaſineſs of breathing.

OATS, ſown in *February* or *March*, are of an opening nature and ſweet; they are the beſt grain for horſes, others being apt to ſtop, which muſt be injurious; yet oats given in too great a quantity over-heat a horſe.

Oats newly houſed and threſhed, before they have ſweat in the mow, or have been otherwiſe thoroughly dried, are too laxative.

OBEY. A horſe is ſaid to obey the hands and the heels, to obey the aids or helps. Thus:

A horſe is ſaid to obey the ſpurs, that is, to fly from them.

OPENING OF A HORSE'S HEEL, is when the ſmith, in paring the foot, cuts the heel low, and takes it down within a finger's breadth of the coronet, ſo that he ſeparates the corners of the heel, and by that means impairs the ſubſtance of the foot, cauſing it to cloſe, and and become narrow at the heels: this practice therefore ought always to be avoided, ſince if there be any weakneſs in the foot, it will of neceſſity make it ſhrink and ſtraiten in the quarters, ſo as abſolutely to ſpoil the foot.

ORTOLAN. A bird ſomewhat ſmaller than a lark, having a red bill, legs, and feet, the wings intermixt with black and yellow, the neck, head, and belly of an orange colour, the breaſt yellow, with orange-coloured ſpots.

It feeds upon millet, it is delicious food, and caſts much fat; they come to us in *April*, and go away in *September*; the time to take them is in *July* and *Auguſt*. They are taken in bow-nets: the places they moſt delight in, are vineyards, and oat fields near them.

OSSELETS, *i. e.* LITTLE BONES, are hard excreſcences in the knees of ſome horſes, ſo called in *French*.

There are alſo three kinds of oſſelets, which are of the ſame nature as ſplents, and ſome perſons take them for the ſame thing; but there is this difference however between them, that ſplents come near the knees, and oſſelets near the fetlocks. Their ſeat is indifferently within or without the leg.

The firſt is the ſimple oſſelet, which does not grow near the joint of the fetlock or the nerve.

This need not hinder any man from buying a horſe, becauſe it puts him to no inconvenience, and very often goes away of itſelf without a remedy. The ſecond is, that which deſcends into the fetlock, and hinders the motion of that joint: this occaſions a horſe to ſtumble and

and fall, and with a very little work to become lame. The third has its ſeat between the bone and the nerve, and ſometimes upon the nerve; it ſo much incommodes a horſe that he cannot ſtand firm, but limps on every little occaſion.

OTTER. Some are of opinion, that the otter is of the beaver kind, being an amphibious creature, living both in the water and on the land; beſides, the outward form of the parts bears a likeneſs of the beaver; ſome ſay, were his tail off, he were in parts like the beaver, differing in nothing but habitation, for the beaver frequents the ſalt water as well as the freſh, but the otter never goes to the ſalt.

Though the otter lives in the water, yet he does not, like fiſhes, breathe through the benefit of the water, he taketh breath like other four-footed beaſts, yet will remain a long time underneath the water without reſpiration.

If he wants prey in the waters, then he will quit them for the land; and if by painful hunting on ſhore he cannot fill his belly, he will feed on herbs, ſnails, or frogs; neither will he take leſs pains in the water to ſatisfy his hunger, for he will ſwim two miles together againſt the ſtream, that ſo, when he has filled his belly, the current may carry him down again to his deſigned lodging, which is always near the water, very artificially built with boughs, ſprigs, and ſticks, couched together in excellent order, wherein he ſits to keep him from the wet.

In the hunting of fiſh, he often puts his noſe above water to take breath: he is a creature of wonderful ſwiftneſs and nimbleneſs in taking his prey, and for greedineſs, takes more than he knows what to do with.

He is a very crafty and ſubtle beaſt, and endowed with a wonderful ſagacity and ſenſe of ſmelling.

The fleſh of this beaſt is both cold and filthy, becauſe it feedeth on ſtinking fiſh, and therefore not fit to be eaten, yet it is eaten in *Germany;* and the *Carthuſian* friars, who are forbidden the eating of all manner of fleſh of other four-footed beaſts, yet are not prohibited the eating of otters.

OTTER-HUNTING. This is performed by dogs called otter-hounds, and with inſtruments, called otter-ſpears, with which when they find themſelves wounded, they make to land and fight with the dogs furiouſly, as if they were ſenſible that the cold water would annoy their green wounds.

There is indeed craft to be uſed in the hunting them; but they may be catched in ſnares under water, and by river-ſides; but great care muſt be taken, for they bite much and venomouſly, and if they remain long in the ſnare, they will not fail to get themſelves free by their teeth.

In hunting them, one man muſt be on one ſide of the river, and another on the other, both beating the banks with dogs, and the beaſt not being able to endure the water long, you will ſoon diſcover if there be an otter or not in that quarter, for he muſt come out to make his ſpraints, and in the night ſometimes to feed on graſs and herbs.

If any of the hounds find out an otter, then view the ſoft grounds and moiſt places, to find out which way he bent his head; if you cannot diſcover this by the marks, you may partly perceive it by the ſpraints; and then follow the hounds, and lodge him as a hart or deer.

But if you do not find him quickly, you may imagine he is gone to crouch ſomewhere farther off from the river; for ſometimes they will go to feed a conſiderable way from the place of their reſt, chuſing rather to go up the river than down it.

Perſons that hunt otters muſt carry their ſpears to watch his vents, that being the chief advantage; and if they perceive him ſwimming under water, they muſt endeavour to ſtrike him with their ſpears, and if they miſs, muſt purſue him with the hounds; which (if they be good and perfectly entered) will go chanting and trailing along by the river-ſide, and will beat every root of a tree, and oſier-bed, or tuft of bull-ruſhes; nay, they will ſometimes take water, and bait the beaſt like a ſpaniel, by which means he will hardly eſcape.

OVER-DONE, OVER-RID, OR OVER-WORKED; a horſe is ſo called, when his wind and ſtrength are broke and exhauſted with fatigue.

OVER-REACH. A horſe is ſaid to over-reach when he brings his feet too far forwards, and ſtrikes his hinder toes againſt the ſpunges of his fore-ſhoe.

A horſe over-reaches through a weakneſs in the back, or by being ſuffered to bear too much upon the ſhoulders.

OWL, HORN-OWL, HORN-COOT. A large bird that keeps always in woods and great foreſts, being often bigger than a middle ſized gooſe; with hairy eyes, and rough-footed, great tufts of feathers on either ſide of his head, bearing out like horns, his face broad and large, his eyes great and ſparkling, and his voice terrible; but being a bird that uſually ſleeps by day, when other fowls eſpy him, they gather about him both great and ſmall, and attempt to kill him.

When a fowler has got ſuch a one as this, he need not want recreation, after having made him fit for his purpoſe: to which end, let him firſt teach him to come and feed on his fiſt, and then put him into ſome room or cock-loft, where there are placed two pieces of timber, one at each end of the room, which ſhould be two feet high, and the upper ſide cut like the ridge of a houſe, declining on both ſides, that the horn-coot may perch thereon; then tie a cord from one end of the ſaid perches to the other, having firſt drawn it through an iron ring, or ſome ſtrong leather ſtrap, to which fix a ſtrap about three feet long, and at the other end your horn-coot is to be faſtened by the legs, like a hawk, but the ring or ſtrap muſt be looſe, ſo as to play forwards and backwards from one billet to another, that the bird may divert himſelf when he is minded to change places.

At firſt, ſet not your two perches or billets above ſix or ſeven feet aſunder, but afterwards you may lengthen by little and little, as you perceive he comes on. Let him not reſt at time upon the ground; and let the ſtrap by which he is tied be proportioned to the height of the perches.

You muſt alſo teach him to fly from one ſtand to another, but never feed him on that perch where you find him, but only ſhew him his food, to draw and entice him to the other perch.

When

When he has had a reward of two or three bits, remove yourſelf to the other end, calling him, and unleſs he comes to the other perch give him no more; and hereby in a ſhort time you will find he will be too quick for you, and in two months he will be perfected therein.

OX-FEET IN A HORSE, is when the horn of the hind foot cleaves juſt in the very middle of the fore-part of the hoof, from the coronet to the ſhoe: they are not common, but very troubleſome, and often make a horſe halt.

OX LEGS. An imperfection in ſome horſes, which, though they have the back ſinew of their fore-legs ſomewhat ſeparate from the bone, yet their ſinews are ſo ſmall and ſo little ſet off, that their legs will become round after ſmall labour.

OXEN FOR DRAUGHT. On this ſubject Mr. LAWRENCE has paid great attention, and with great judgment ſays, among various other obſervations, that the uſe of oxen in draught would be a national benefit.

Mr. CULLEY, and his partner, employ one hundred and fifty draught-oxen in their huſbandry, after thirty years experience of their utility; they uſe them in carts ſingle, and two in a plough, with reins, and no driver. Mr. CULLEY's advice is, not to mix oxen with horſes, on account of the inequality of the ſtep.

Thus, it is not a matter of ſpeculation, but of experience and proof, that all the labour of huſbandry may be well performed by oxen; and ſurely, if the only objection, that of their being ſomewhat ſlower than horſes, can never be ſurmounted, there are other conſiderations of weight ſufficient to overbalance it. A greater number of them may be kept to forward labour, and that, inſtead of being an extra charge (as would be the caſe with an extra number of horſes) to both individual and public emolument. The balance in favour of individuals muſt be indeed great, if we reflect that three oxen may be purchaſed for leſs money than one good cart-horſe; that the latter is liable to be worn out, and to become of little or no worth, whereas the former never wear out, but the laſt ſtage of their uſeful lives is as profitable as the firſt.

The method propoſed by moſt people, deſirous of effecting this advantageous change in our agricultural œconomy, is by the interference of government, either by the way of reſtrictive taxation, or abſolute prohibition; means which, ought never to be reſorted to, in any ſimilar caſe. There is, however, a ſpecies of coercion perfectly legitimate, that of the lord of the land over his tenant; and it is ſubmitted to public-ſpirited landlords, whether, in granting leaſes, it would not be an act of patriotic duty, to ſtipulate for the employment of draught oxen upon the farm to a certain extent. Such a clauſe would be an advantageous change for the impolitic one of compelling the tenant to make ſummer fallows.

But it behoves thoſe, who are ſo ſanguine in recommending the uſe of bullocks for labour, to point out where ſuch may be had, and that with little trouble too; for it is well known to thoſe moſt converſant with his character, that honeſt John Trot would not be induced to ſtep a ſingle inch out of his accuſtomed track, by a proſpect of the greateſt advantage; nay, would even deteſt the man with a kind of religious hatred, who ſhould preſume to point it out to him. The oxen broke for draught are few; and in numberleſs ſituations, particularly out of breeding counties, a man muſt ſend five or ſix ſcore miles to obtain them. This inconvenience muſt be obviated by the body of landlords, and by our great experimental ſtock-breeders; on whom it depends to raiſe an improved ſpecies, in ſufficient numbers for general uſe, and to promulge the beſt methods of breaking and training them to labour. The old faſhioned wooden yoke has been long laid aſide, and experience ſhews that oxen draw beſt in breaſt collars; indeed their harneſs differs very little from that of the horſe, and any collar-maker can very eaſily furniſh them.

The improvement having obtained thus far in the field of huſbandry, and having ſurmounted its greateſt difficulty, it is ſcarce poſſible, but it muſt even, by contagion, reach the other departments of public ſervice. Stage waggons are not required to move quick, and if we muſt give up a few hours in a journey, ſurely both the proprietors and the public would be amply recompenſed for a little loſt time, by the exchange of wholeſome beef, for unprofitable carrion. Teams of oxen were ſet up years ago, in this ſervice, which did not ſucceed, but were again exchanged for horſes; but little ſtreſs will be laid upon this by perſons verſed in the uncertain nature of experiments. The ſpecies of cattle might be improper, and we have reaſon to ſuſpect they were not kept in ſufficient good condition. The expected improvement in carriages, from the multiplication of wheels, may poſſibly have the additional good effect of promoting the uſe of oxen. All perſons concerned in carriages, will do well to attend to what Mr. JAMES has ſaid upon the ſubject.

With reſpect to the brewery, upon a ſmall ſcale, or in the country; all the buſineſs of draught required in ſuch a ſituation, may be equally well performed by oxen, as by horſes: a conſiderable improvement of that concern, ſince their bullocks, after having worked a ſufficient time might be fatted with their own grains.

How far oxen might be uſeful in the hurry and buſtle of a *London* porter brewery, the concerned muſt be the moſt proper judges; and there can be no doubt that thoſe gentlemen would be ready enough to catch at any conſiderable alleviation of the immenſe expence of horſe-keeping, the annual amount of which, in a great houſe, is a noble revenue.

Often has it been wiſhed it were poſſible to extirpate the whole race of thoſe Belgic-locuſts, the heavy cart-horſes, and to divide the duties of ſlow-draft between polled oxen and caſt-off machiners. It would be an act of mercy, and ſecuring a kind of retreat for theſe laſt, particularly when employed upon a farm; for which reaſon, we ſhould wiſh to ſee them a ſomewhat wider and ſquarer race. After all theſe fine ſpeculatious, we fear we muſt have a few *Suffolk* punches, to draw us through, when deeply ſet.

Mr. LAWRENCE alſo ſays, an ox-team ploughs an acre in eight hours, performing the day's work with full as much

much eaſe and diſpatch as a team of horſes. The oxen are exceedingly handy, and may be driven with a heavy load to a hair's breadth. My informant is in the habit of carting lime from the diſtance of ſeventeen miles, both with ox and horſe teams, and the former uſually beat the horſes by about an hour in the journey, taking the carts faſter up the hills. Oxen, by trial, have walked more miles in a given time than cart-horſes. They are fed (the oxen) with hay and chaff, and but little corn.

The neat cattle both of *Herefordſhire* and *Shropſhire*, are a ſuperior ſpecies in reſpect to form as well as ſize; the latter have the preference for the dairy; the former are reared to great ſize and beauty, by the judicious and ſpirited breeders of that county, and annually command extraordinary prices, as grazing ſtock, in *Buckingham* and *Oxfordſhire*. In *Herefordſhire* they put their bullocks to work at two years old, continuing them until five or ſix; but as during the late exceſſive prices of ſtock, every reſource has been anticipated, working oxen have been commonly ſold to go to keep, at three and four years old. The price of a young bullock, fit to break for harneſs before the war, was from ten to ſeventeen pounds, ſince which it has been more than doubled. Indeed the price of live ſtock of all kinds, has been of late, and was on the commencement of the year 1797 ſo exorbitant, as ſcarce to ſeem deſerving of credit; now the exceſs is in ſome degree moderated.

The ox being an animal of a meek and gentle ſpirit, and eaſily intimidated, it is highly neceſſary to uſe the utmoſt mildneſs and forbearance in breaking him to labour, and, indeed in driving him ever afterwards; a raſh and mad-headed fellow will ſoon ſpoil the tempers, and lower the worth of the beſt team of bullocks. They are apt to conceive attachments and antipathies, and to take alarm at perſons who have treated them ill. On firſt beginning to plough with oxen, it is adviſable to engage a driver who is their countryman, and has been accuſtomed to attend the ſpecies.

In *Suſſex*, the uſe of oxen for the plough is general, and they perform well upon the ſtiffeſt clays of that county; it has even been aſſerted, that they hang better to the collar, in a long day, than horſes. The *Suſſex* beaſts are ſlower than the *Hereford*. Some farmers have put their bulls to work with good ſucceſs.

Now if accounts are to be relied on, there are oxen to be found, nearly, if not altogether upon a par with horſes, both at plough and on the hard road, notwithſtanding no improvement in the breed, for that expreſs purpoſe, has ever been attempted; and it has never yet been the cuſtom to feed them well, or to aim at getting them in high condition, as we do horſes. On that account it probably is, that bullocks are ſometimes ſo dull and faint, and liable to ſuch dangerous accidents, from being over fatigued at work.

In *Holland* they keep their cows curried as fine as racers, and I have even been told they clothe them upon turning them out; and I think our labouring beaſts ought to be kept within doors in winter, fed with corn, and dreſſed in as careful a manner as our horſes.

The fair queſtion is, does an additional annual product of corn throughout the iſland reſult from the labour of horſes, ſufficient to reimburſe their ſuperior expence, and to counterbalance the profit of ſlaughtering the oxen, after their period of labour ſhall have expired? I ſhould ſuppoſe the negative of the propoſition moſt probable, and that we are merely ſacrificing to our prejudices, and to the venerable idol cuſtom, in uſing ſuch multitudes of draught horſes. Of the farther poſſible improvement of the breed of oxen, in point of activity, we ſhall not heſitate to ſpeak with confidence; nor to aver, there are many farms (it is true they are not in *Norfolk* or *Suffolk*) the whole ploughing and carting buſineſs of which might be to the full as well performed, in all reſpects, by oxen, as it now is with horſes.

One of the reviews (the Britiſh Critic) in the article of a pamphlet of the intelligence from ſeveral different quarters in the weſt, goes to the length of a decided preference of oxen, both at plough and cart, reſulting from long experience and fair trial; but at the ſame time I ought in juſtice to acknowledge, that my countrymen, the farmers of *Eſſex*, poſitively aſſert the ſuperiority of horſes, and even the almoſt impoſſibility of making any tolerable ſhift with oxen; at the ſame time, none of theſe gentlemen have ever made the experiment; but ſuch is their opinion *a priori*. To recapitulate, beginning with the following obſervations upon this ſubject.

In *Hampſhire*, a conſiderable farmer, keeping an equal number of horſes and of oxen, for the plough, found little or no difference in their ſervices.

In *Northumberland*, Mr. CULLEY, after thirty years experience, keeps one hundred and fifty draught oxen, uſing them two in a plough, with reins and no driver, and in carts, ſingle.

In *Middleſex*, an ox-team of the ſloweſt kind, having little, or perhaps no corn, ploughed three quarters of an acre per day, where the horſe-team did an acre. Theſe bullocks alſo carted hay to *London*, returning as uſual with dung.

In *Herefordſhire*, the oxen with very little corn, beat the horſes both at plough and upon the roads, which are very hilly and ſtoney.

In *Suſſex*, oxen are uſed at plough with the greateſt ſucceſs.

In many parts of the Weſt of *England*, oxen are preferred to horſes, for both kinds of labour.

From theſe data, every one is at liberty to draw ſuch inferences as to him may ſeem rational. Let it be conſidered, that the number of horſes employed in agriculture, and for the different purpoſes of ſlow draught, in *Britain*, probably exceeds one million five hundred thouſand, and that if only one half of thoſe could with propriety be changed into good wholeſome beef, how immenſe muſt be the ſaving; it being taken into the account, that the time approaches, with fearful ſtrides, when national economy alone can ſave us from impending deſtruction. In two reſpects, we may perhaps pretend to ſome little originality of thinking on this ſubject; to wit, on the more liberal feeding, and the breeding the ox to greater ſpeed. Every one who has entered into the philoſophy of laborious exertion, and attended

tended the practice, whether in men or animals, muſt be convinced how much it depends upon ample and ſolid nutriment. Every adept in the myſteries of the ſtable, well knows how contributory are cleanlineſs, and keeping the perſpiration open and free, by regular diurnal frictions, to the nimbleneſs and hilarity of the animal. In regard to raiſing a variety of the ox, with the qualification of more than the uſual activity, where ſhould be the difficulty, ſince we have been long accuſtomed to vary and mould him at pleaſure into ſuch differing ſhapes and forms, as caprice or intereſt has prompted? Perhaps thoſe gentlemen who have been in the habits of breeding horſes for the turf, would ſucceed beſt in this purſuit: it is of great national importance, and not unworthy attention.

The *Annals of Agriculture*, after ſtating, that the labouring ox, with proper management, gains two or three pounds per year, whilſt the horſe grows annually worſe, obſerves, "that the ox requires no oats, and inſtead of hay, is generally contented with ſtraw." We muſt beg leave to hint to that reſpectable writer and agriculturiſt, our apprehenſion, that ſuch obſervations may have a tendency rather to retard, than forward, the public cauſe of employing oxen. The grand objection to bullocks for labour, is want of expedition, which can never be obtained from any animals, without ſolid and generous keep. It neither conſiſts with humanity, public or private intereſt, to labour the ox in low condition.

LEONARD MASGAL, farrier to JAMES I. ſays, "that oxen were generally uſed and eſteemed ſuperior to horſes, for the plough, in his days; he mentions diſorders brought upon working oxen by poor keep, and their being ſubject in conſequence to lie down in the furrow, when they were with difficulty got up again; he recommends for them, barley in the ſtraw, which will, he ſays, keep them luſty and ſtrong; alſo to curry them like horſes, and conſtantly waſh their feet and claws. It was their cuſtom in thoſe days to work barreners. The ancients occaſionally purged their labouring oxen.

Mr. YOUNG, in the number of the annals above quoted, ſpeaks of a hornleſs breed of Devons, of a red colour, near *Bridport*; recourſe may be eaſily had thither, by a curious breeder. In breeding the ox for labour, the required points, in my opinion, are, clean and fine head and neck, deep ſhoulder, wide quarters, thin ſkin, ſilk coat; and thoſe qualities muſt be ſought among the *Herefords*, *Yorkſhire* ſhort-horns, *North Devons*, and thoſe of *Suſſex*. There are exceeding faſt walkers amongſt the *Yorkſhire* cows; and ſome well formed for labour, which appeared to be bred between *Norman* or *Alderney* ſtock, and *Yorkſhire*. Equal activity of exertion at dead pulls, or ability to lift great weights, with our beſt cart-horſes, muſt never be expected in the moſt improved breed of oxen; at the ſame time it muſt be conceded, thoſe qualities are not our material objects of purſuit.

PACE OF ASSES. A herd or company of thoſe beaſts.

PACES OF A HORSE. The natural paces of a horſe's legs are three, viz. a walk, a trot, and a gallop; to which may be added, an amble, becauſe ſome horſes have it naturally; and ſuch horſes are generally the ſwifteſt amblers of any.

Horſes which go ſhuffling or mixt paces, between the walk and amble, are for the moſt part of no value; and this oftentimes proceeds from their fretful fiery temper, and ſometimes from a weakneſs either in their reins or legs.

PADDOCK-COURSE. } A piece of ground en-
PADDOCK. } compaſſed with pales or a wall, and conveniently taken out of a park, it muſt be a mile long, and a quarter of a mile broad, but the farther end ſhould be ſomewhat broader than the nearer, becauſe that moſt people deſire to ſee the end of a courſe, and who wins the wager.

At the hither end is to be the dog-houſe, where the hounds are to be kept that are to run the courſe, which muſt be attended by two men, one of them to ſtand at the door, to ſlip the dogs, but the other muſt be a little without the door to ſlip the teazer, to drive away the deer.

On the other ſide are to be made three pens for as many deer as are deſigned for the courſe; and there muſt be alſo a keeper or two, to turn the deer out from the courſe, which the deer are to run all along by the pale; and on the other ſide, at the ſame diſtance, ſtand the ſpectators; beſides all which, theſe poſts muſt alſo be placed along the courſe.

1. The law-poſt, which is next the dog-houſe and pens, and diſtant from them about an hundred and ſixty yards.
2. The quarter of a mile poſt.
3. The half mile poſt.
4. The pinching poſt.
5. The ditch: which is in lieu of a poſt, being a place ſo made to relieve the deer, and to keep them from being farther purſued by the dogs; and near this place are made ſeats for the judges to ſit, who are choſen to decide the wager.

As ſoon as the greyhounds that are to run for the plate or money, are led in the dog-houſe, they are delivered to the keepers, who by the articles of all courſes, are to ſee them fairly ſlipt; for which end there is put about each dog a falling collar, which is ſlipt through the rings, after the owners of the dogs have drawn cuts which ſhall have the wall, by reaſon that there ſhall be no more advantage to the one than the other; then the dog-houſe doors are ſhut, and the keeper ordered to turn the breathed deer out of the pens, which is no ſooner done, and the deer gone twenty yards, but he that holds the teazer, ſlips him, to force the deer forward; but when he comes to the law poſt, the dog-houſe door is opened, and the dogs let out and ſlipt. If the deer ſwerve before he comes to the pinching-poſt, ſo much that his head is judged to be nearer the dog-houſe than the ditch, then it is judged no match, and in ſuch a caſe it muſt be run again three days after: but if there be no ſuch ſwerve, but that the deer runs ſtraight, beyond the pinching-poſt, then that dog that is neareſt the deer, when he ſwerves, or is blanched by any accident, wins the match; but if no ſuch ſwerve

happen, then that dog that leaps the ditch firſt, wins the match.

PAINS IN HORSES is a diſtemper, a kind of ulcerous ſcab, full of a fretting mattery water, breeding in the paſterns, between the fetlock and the heel; which comes for want of clean keeping and good rubbing, after the horſes are come off a journey, by means of which, ſand and dirt remaining in the hair, frets the ſkin and fleſh, which turns to a ſcab; and therefore thoſe horſes that have long hair, and are rough about the feet, are more ſubject to this diſeaſe, if they be not kept clean.

The ſigns are theſe, his legs ſwell with the vehement heat that is cauſed from the venom and filthy water which iſſues from the ſcabs, for it is ſo ſharp and ſcalding that it will ſcald off the hair, and breed ſcabs as far as it goes. That which cures the ſcratches will ſerve to heal theſe.

PALATE. The upper part or roof of the mouth.

In a horſe, the palate ſhould be lean, for if it be fat, *i. e.* full and high, ſo as to be almoſt equal with the extremities of his upper teeth, the leaſt height in the liberty of a bitt will be troubleſome, and make him either chack in the bridle and be always throwing up his head, or otherwiſe carry it too low, which, beſides the unſightlineſs, will much annoy the rider's hand.

Horſes are commonly bled in the palate with a ſharp-pointed horn, to refreſh and give them an appetite.

PALSY IN HORSES, a diſeaſe that ſometimes deprives the whole body of ſenſe, and then it is called the general palſy, is incurable; but when the uſe of ſome part only is taken away (which moſt commonly happens in the neck) it is then called a particular palſy.

The ſigns by which this diſtemper is known, are, that the horſe will go grovelling and ſide-ways like a crab, carrying his neck as if it were broke, and will ſet forward crookedly, with his legs, and beat his head againſt the wall.

The diſeaſe proceeds from foul feeding in fenny grounds, which breed groſs and tough humours, and being joined by crudities and ill digeſtion, affects the brain; or it may have been cauſed by ſome wound or blow upon the temples.

In order to a cure, bleed him in the neck-vein and temple-vein, on the contrary ſide to the way he turns his neck; then anoint his back all over with petroleum, or oil of petre, and ſwathe his neck with a wet hay-rope, even from his breaſt to his ears.

Then give him for three mornings together a pint of old muſcadine, with a ſpoonful of the powder of opopanax, ſtaran, gentian, manna, ſuccory, myrrh, and long pepper; but put not ſo much of the laſt ingredients as of the reſt.

This diſeaſe may be relieved by bleeding, rowels, infuſions of the herbs, with muſtard, horſe radiſh, and parſley, acidulated with cremor tartar, and ſweetened with honey. Briſk purge of aloes and jalap, or a mercurial purge of cinnabar balls. It ſhould be remembered always to acidulate the cooling herb drinks with cremor tartar or lemon juice, as otherwiſe they pall and diſguſt the ſtomachs of horſes; and that generally infuſions in boiling water, are to be preferred to decoctions.

PANNAGE, } the man of the woods, as of beech,
PAWNAGE, } acorns, &c. which ſwine or other cattle feed on; or the money taken for feeding hogs with the maſt of the king's foreſt.

PANTAS IN CATTLE; this diſeaſe proceeds from eating foul graſs, or dry harſh graſs in ſummer, which does not go forth of their maw, but maketh them go with a ſhort grunt, and go but a little way, and ſtand as if they were not able to go half a mile. To cure it,

Take a quart of half churned milk with the butter in it, and take a good garlic head, or two little ones, and peel them as if they were to eat, ſo bruiſe them; then take a pennyworth of the fineſt tar that you can get, and a good handful of the fineſt feathers that can be got without ſtumps, for fear of ſticking in the beaſt's throat; beat all theſe together, and, if they chance to go in lumps, put them together and beat in a little ſoot; and ſo give it to the beaſts, and they will be well in twenty-four hours.

PANTONS, OR PANTABEL-SHOES, are a ſort of horſe-ſhoes that ſerve for narrow and low heels, and to hinder the ſole from growing too much downwards, ſo that the foot may take a better ſhape; they alſo help hoof-binding, and are good for *Flanders* mares before their feet grow bad.

When a horſe is ſhod with a panton, it muſt follow the compaſs of the foot, and the branches muſt not be ſtraight: care muſt alſo be taken to keep the ſole ſtrong, without taking any thing almoſt from it, otherwiſe the horſe will halt.

PARE, to pare a horſe's foot, is to cut the horn and the ſole of the foot, with a buttrice, in order to ſhoe him.

PARKS AND WARRENS, are places where deers, hares, conies, &c. are incloſed with pales, or a wall, ſo as it were a ſtore-houſe, to be always ready to furniſh you with thoſe animals either for uſe or pleaſure.

The firſt *Roman* that incloſed wild beaſts was FULVIUS HARPINUS. VARRO, who lived 28 years before Chriſt, had the firſt hare warren. The firſt park in *England* was at *Woodſtock* in *Oxfordſhire*, and was made about the year 1124.

A park ſhould have three ſorts of land in it, viz. mountainous and barren, hilly and yet fertile, plain and fruitful; the mountainous part ſhould be well covered with high woods, at leaſt a third part thereof; the downs and hills, ſhould have one-third part coppices and low woods; and the plains at leaſt one-third part meadows with ſome arable for corn.

A park ſhould not want a river to run through ſome part of it; alſo it ought to have a ſmall brook or ſpring, but if nature denies theſe conveniencies, art muſt ſupply it by ponds, made to receive and preſerve rain that falls; and ſuch ponds will be very profitable for fiſh and fowl, in ſome of which may be made a decoy.

You ſhould have your park well ſtored with many trees, as oak, beech, and cheſnut, which are not difficult to be had, and are quick of growth, eſpecially the two laſt, and they exceed the former alſo in ſweetneſs and goodneſs; neither ſhould apple, pear, and plum trees, be wanting, all affording good food for them.

You ſhould alſo have your park well incloſed, if poſſible, with a brick or ſtone wall; or, for want of that, with a pale of ſound oak, ſo high and cloſe joined, that neither badger nor cat can creep through, nor wolf nor fox can leap over; and for a further defence, it is not amiſs to have a good quick-ſet hedge, which ſhould be always kept in good order.

Some part of the mountain and high-wood may afford a hernery, and ſome part of the middle may be for a coney or hare warren.

In the whole, you may breed young cows and horſes, nor is it amiſs that in ſome part of the low ground, you have a cow walk during the ſummer ſeaſon.

There ſhould be at leaſt five or ſix incloſures in your park, that you may ſhut out, and let in, your deer, as you ſee occaſion; ſometimes all together in your high woods, where in cold froſts and ſnow they may be ſheltered, and fed by the keepers with hay and provender.

You may alſo in ſummer let ſuch a proportion as you intend to uſe, be fed in better ground than the others which are for ſtore.

You ſhould make artificial holes and caverns for the deer to retire into, as well in the hot as cold ſeaſons.

It will be proper to ſow therein gourds, meceline-corn, barley-peas, and the like, in which hares generally delight, and will thereby quickly grow fat.

And as for conies, if you found a trumpet in ſome of the burrows, there will be ſcarce one in the whole warren but will ſtart out.

PART, OR DEPART, a word uſed in the academies to ſignify the motion or action of a horſe when put on at ſpeed.

Part of a Horſe's Body.

1. As to the hair. The hair and hide, are in general all the hair and ſkin of the body of the horſe.
2. The mane; the long hair on the horſe's neck.
3. The topping; or foretop.
4. The fetter-lock, or fetlock; the hair that grows behind the feet.
5. The coronet, or cronet; the hair that grows over the top of the hoofs.
6. The brills; the hair on the eye-lids.

As to the Head, Neck, and Breaſt.

1. The creſt, or criſt; the ridge on the upper part of the neck, where the mane grows.
2. The neck; is accounted all from the head to the breaſt and ſhoulders.
3. The breaſt, briſket, or cheſt; is the fore-part of the neck at the ſhoulder down the fore-legs.
4. The ſtar is in the forehead.
5. The rache down to the face; when the hair is of another colour, different from the reſt of the head.

As to the Body.

1. The withers; are the top of the ſhoulder-blades, at the ſetting on of the neck.
2. The dock; is the place where the ſaddle is ſet.
3. The navel-gall; on the back oppoſite the navel.
4. The reins; is all the middle of the back from the mane to the tail; the ridge of the back.
5. The dock or ſtrunt; is the tail of the horſe.
6. The fundament, or tuel; the aſe.
7. The ſway, or ſwayed back; is the hollow, or ſinking down of the back bone.
8. The thropple; the wind-pipe.
9. The girth-place; is the fore-part of the belly.
10. The belly; the middle of the belly where the navel is; the navel-place.
11. The flank; is the hinder part of the belly, next the ſheath.
12. The groins; are the hinder parts near the thighs, on each ſide the ſheath.
13. The ſheath; is the looſe ſkin within which the yard is.
14. The yard; is his byentall.
15. The nut; is the bob at the end of his yard.
16. The cods; is the ſkin in which the ſtones are.
17. The fillets; are the fore parts of the ſhoulders next the breaſts.
18. The ſides; the nearer-ſide, farther-ſide, riſing-ſide.
19. The buttocks; are the hinder parts of a horſe's body.
20. The top of the buttock; is that part next the ridge of the back and tail.

As to the Thighs and Legs.

1. The ſtiffle, or ſtiffle-joint; is the firſt joint and bending next the buttock, and above the thigh, which bends forwards
2. The thigh; is that part between the chambrel and ſtiffle joint.
3. The chambrel, or elbow; is the joint, or the bending of the upper part of the hinder-leg, that bends backwards from the body.
4. The ham and bight, or bought; is the inward bending of the chambrel; it is alſo uſed for the bending of the knees in the foremoſt legs.
5. The hough, leg, or ſhank; reaches from the chambrel to the fetlock, or paſtern-joint of the foot.
6. The ſmall of the leg; is the ſmall part of the legs, both in the hinder and fore-legs.
7. The foul of the leg.
8. The back-ſinews of the leg, is the back of the leg, above the fetlock.
9. The paſtern, fetlock-joint, or ancle; is the joint in the fetlock, which bends in all the feet forwards.
10. The coronet; is the foot above the hoof of the ancle-joint, ſo called in all the feet.
11. The curb.

12. The

12. The ſhoulder; is that part which extends from the withers to the top joint of the thigh.

13. The thigh; reaches from the bent of the thigh to the knee.

14. The farther leg before; is the right leg before.

15. The next, or nearer leg before; is the left leg of the riſing ſide before, or the riſing ſide.

As to the Feet.

1. The hoof, or horn.

2. The coffin; is the hollow of the hoof in which the foot is fixed, the foot fallen off.

3. The fruſh; is the tender part of the hoof next the heel.

4. The ſole of the foot.

5. The frog of the feet; which ſome call the ball of the foot.

6. The rift of the hoof; is that part that is pared or cut off, it being too long grown; the ſpace between the fruſh and the heel.

7. The heel; is the riſing in the middle of the ſole; the narrow heel.

8. The toes; are the fore-parts of the hoofs, the quarters, the inſides of the hoofs.

9. The paſtern, or feet; is that part under the fetlock, to the hoof.

Parts of a Horſe's Body proper to bleed in.

It is uſual to bleed horſes in the jugular veins, which lie on each ſide of the neck, for the farcy, mange, repletion, and ſeveral other diſtempers; and alſo by way of repetition twice a year, to all horſes that feed well and labour but little.

Blood is uſually taken from the temples, with a ſmall lancet, for bites or blows on the eyes.

Farriers have a lancet made on purpoſe for opening of veins beneath the tongue, for head-aches, or for being diſguſted or over-heated by exceſſive labour, or for cholics, and the vives.

It is uſual to bleed horſes in the griſtle of the noſe, without any regard whether they hit the vein or not; and this is alſo for cholics, vives, and being much over-heated.

Horſes are let blood in the middle of the palate, above the fourth bar, with a lancet or ſharp horn, when they have been diſguſted, haraſſed, or over-heated and dull.

Blood is taken from the baſilick, or thigh veins of horſes, for ſtrains in the ſhoulders, or the mange in thoſe parts.

Horſes blooded in the paſterns, with a fleam or a lancet, for ſtrains or infirmities in the hams or knees.

They are let blood in the toes, with a buttrice, or drawing iron, for beating in the feet, and infirmities in the legs, ſuch as ſwellings and oppreſſions of the nerves.

The flank veins are ſometimes opened with a ſmall lancet made for that purpoſe, for the farcy.

Blood is drawn with fleams in the flat of the thighs, for blows and ſtrains in the haunches.

They bleed in the tail or dock, with a long lancet, for a fever and purſineſs.

PARTRIDGES, being naturally a cowardly, fearful, ſimple bird, are eaſily deceived or beguiled with any device whatever, by train-bait, engine, call, ſtalo, *&c.*

I ſhall in the firſt place begin to conſider their haunts, which are not certain, but various; any covert will ſerve their turn, and ſometimes none at all.

The places they delight in moſt are corn-fields, eſpecially whilſt the corn grows, for under that cover they ſhelter and breed; neither are thoſe places unfrequented by them when the corn is down, by reaſon of the grain they find there, the height of which they delight in, being to them as a covert or ſhelter. When the wheat ſtubble is much untrodden; and they will, in the furrows, amongſt the clots, brambles, and long graſs, hide both themſelves and coveys, which are ſometimes twenty in number, nay, thirty in a covey.

When the winter-ſeaſon is arrived, and theſe ſtubble fields are ploughed up, or over-ſoilded with cattle, partridges reſort into the upland meadows, and lodge in the dead graſs, or fog under hedges amongſt mole hills, or under the roots of trees; ſometimes they reſort to coppices and under-woods, eſpecially if any corn-fields are adjacent, or where grows broom, brakes, fern, *&c.*

In the harveſt-time, when every field is full of men and cattle, in the day time, you will find them in the fallow-fields which are next adjoining to the corn-fields, where they lie lurking till evening or morning, and then they feed among the ſheaves of corn.

When you know their haunts, according to the ſituation of the country and ſeaſon of the year, your next care muſt be to find them out in their haunts, which is done ſeveral ways. Some do it by the eye only; and this art can never be taught, but learned by frequent experience, diſtinguiſhing thereby the colour of the partridge from that of the earth, and how, and in what manner they lodge and couch together; by which means you may come near enough to them, they being a very lazy bird, and ſo unwilling to take the wing, that you may almoſt ſet your foot upon them before they will ſtir, provided you do not ſtand and gaze on them, but be in continual motion, otherwiſe they will ſpring up and be gone.

Another way to diſcover them, is by going to their haunts very early in the morning, or at the cloſe of the evening, which is called the jucking-time, and there liſten for the calling of the cock-partridge, which is very loud and earneſt, and after ſome few calls the hen will anſwer, and by this means they meet together, which you may know by their rejoicing and chattering one with another; upon hearing of which take your range about them, drawing nearer and nearer to the place where you heard them juck in; caſting your eye towards the furrows of the lands, and there you will ſoon find where the covey lies.

The beſt, ſureſt, and eaſieſt way for finding of partridges, is by the call, having firſt learned the true and natural notes of the partridge, knowing how to tune every note in its proper key, applying them to their due times and ſeaſons.

Being perfect herein, either mornings or evenings, (all other times being improper) go to their haunts, and having ſecured yourſelf in ſome ſecret place where you may ſee and not be ſeen, liſten a while if you can hear the partridges call, if you do, anſwer them again in the ſame notes, and as they change or double their notes, ſo muſt you in like manner; thus continue doing till they draw nearer and nearer to you: having them in your view, lay yourſelf on your back, and lie without motion, as if you were dead, by this means you may know their whole number.

How to take them with nets.

The nets for taking of partridges muſt be every way like your pheaſant nets, both for length and breadth, except that the meſhes muſt be ſmaller, being made of the ſame thread, and dyed of the ſame colour.

Having found out the covey, draw forth your nets, and taking a large circumference, walk a good round pace with a careleſs eye, rather from than towards them, till you have trimmed your nets, and made them ready for the purpoſe; which done, you muſt draw in your circumference leſs and leſs, till you come within the length of your net, then pricking down a ſtick about three feet long, faſten one end of the line to your net, and make it faſt in the earth as you walk about, for you muſt make no ſtop or ſtay; then letting the net ſlip out of your hands, ſpread it open as you go, and ſo carry and lay it all over the partridges.

If they ſhould lie ſtraggling, ſo that you cannot cover them all with one net, then draw forth another, and do with that as you did with the former; and ſo a third if there be occaſion: having ſo done, ruſh in upon them, who being affrighted, will fly up, and ſo be entangled in the nets.

How to take them with Bird-lime.

Get the largeſt wheat-ſtraws you can, and cut them off between knot and knot, and lime them with the ſtrongeſt bird-lime. Go to the haunts of partridges, and call; if you are anſwered, prick at ſome diſtance from you your lime-ſtraws; in many croſs-rows and ranks, croſs the lands and furrows, taking in two or three lands at leaſt, then lie cloſe and call again, not ceaſing till you have drawn them towards you, ſo that they be intercepted by the way by your limed ſtraws, which they ſhall no ſooner touch but they will be enſnared; and by reaſon they all run together like a brood of chickens, they will ſo beſmear and daub each other, that very few will eſcape.

This way of taking partridges is only to be uſed in ſtubble-fields, from *Auguſt* till *Chriſtmas:* but if you will take them in woods, paſtures, or meadows, then you muſt lime rods, the ſame as for pheaſants, and ſtick them in the ground after the ſame manner.

To drive Partridges.

The driving of partridges is more agreeable than any other way of taking them: the manner of it is thus:

Make an engine in the form of a horſe, cut out of canvas, and ſtuff it with ſtraw, or ſuch like matter, as in plate XV. With this artificial horſe and your nets, go to the haunts of partridges, and having found out the covey, and pitched your nets below, you muſt go above, and taking the advantage of the wind, you muſt drive downward: let your nets be pitched ſlope-wiſe, and hovering. Then having your face covered with ſomething that is green, or of a dark blue, you muſt, putting the engine before, ſtalk towards the partridges with a ſlow pace, raiſing them on their feet, but not their wings, and they will naturally run before you.

If they chance to run a by-way, or contrary to your purpoſe, then croſs them with your engine, and by ſo facing them, they will run into that track you would have them; thus by a gentle ſlow pace, you may make them run and go which way you will, and at laſt drive them into your net.

To take Partridges with a Setting-dog.

There is no method of taking them ſo good as by help of a ſetting-dog, wherefore, before we proceed to the ſport, you are to underſtand what few ſportſmen but already know, that a ſetting-dog is a luſty land-ſpaniel, taught by nature to hunt the partridges more than any chaſe whatever, running the fields over with ſuch alacrity and nimbleneſs as if there was no limit to his fury and deſire, and yet by art, under ſuch excellent command, that in the very height of his career, by a hem or ſound of his maſter's voice, he ſhall ſtand, gaze about him, look in his maſter's face, and obſerve his directions, whether to proceed, ſtand ſtill, or retire: nay, when he is even juſt upon his prey, that he may even take it up in his mouth, yet his obedience is ſo framed by art, that inſtantly he will either ſtand ſtill, or fall down flat on his belly, without daring to make any noiſe or motion till his maſter comes to him, and then he will proceed in all things to follow his directions.

Having a dog thus qualified by art and nature, take him with you where partridges haunt, there caſt off your dog, and by ſome word of encouragement that he is acquainted with, engage him to range, but never too far from you; and ſee that he beats his ground juſtly and even, without caſting about, or flying now here, now there, which the mettle of ſome will do, if not corrected and reproved; therefore, when you perceive this fault, you muſt inſtantly call him in with a hem, and ſo check him that he dare not do the like again for that day; ſo he will range afterwards with more temperance, frequently looking in his maſter's face, as if he would gather from thence whether he did well or ill.

If in your dog's ranging you perceive him to ſtop on a ſudden, or ſtand ſtill, you muſt then make up to him, (for without doubt he hath ſet the partridge) and as ſoon as you come to him, command him to go nearer to it, but if he goes not, but either lies ſtill or ſtands ſhaking his tail, and now and then looking back, then ceaſe from urging him further, and take your circumference, walking faſt, looking ſtraight before the noſe of the dog, and

and thereby ſee how the covey lies, whether cloſe or ſtraggling.

Then commanding the dog to lie ſtill, draw forth your net, and prick one end to the ground, and ſpread your net all open, and ſo cover as many partridges as you can; which done, make in with a noiſe and ſpring up the partridges, which ſhall no ſooner riſe but they will be entangled in the net. And if you let go the old cock and hen, it will be a means to increaſe your ſport. *See* GAME LAWS.

PASSADE, is a tread, or way, that a horſe makes oftener than once upon the ſame extent of ground, paſſing and repaſſing from one end of its length to the other, which cannot be done without changing the hand, or turning and making a demi-tour at each of the extremities of the ground.

PASSAGE; to paſſage a horſe, is to make him go upon a walk or trot upon two paſtes or treads, between the two heels, and ſide-ways, ſo that his hips make a tract parallel to that made by his ſhoulders.

But for a paſſage there is ſo much art required, that a horſe is two or three years in breeding to that manage, and of ſix horſes, it is very much if two of them ſucceed in it.

PASSAGE OF HORSES BY SEA. A perſon who took a ſtallion over to *America*, *upon deck*, gives cautions againſt that as a very dangerous practice. Previous to ſhipping horſes, their ſhoes ſhould be taken off, and their toes ſhortened. In a long paſſage, they ought frequently to have maſhes; ſometimes with brimſtone and cream of tartar, equal quantities, mixed in them.

PASTES FOR BIRDS, this is a general food, and is made as follows:

Grind half a peck of the fineſt horſe beans well dried, very fine, and boult them through a fine boulter, ſuch as is uſed for wheat meal; or if your ſtock of birds do not require ſo great a quantity, take in the following proportion, *viz.*

Of the ſaid meal, two pounds; of the beſt ſweet almonds blanched, one pound; beat theſe very well in a mortar, to which put a quarter of a pound of freſh butter that is entirely without any ſalt: all of which put into a copper ſaucepan, well tinned, mixed all well together, and ſet the pan over a charcoal fire, that the paſte may not ſmell of ſmoak, and keep continually ſtirring it all the while it ſtands upon the fire with a wooden-ſpoon, that ſo it may boil gradually, and not burn-to; then take four yolks of eggs, and a little ſaffron, and when the butter is melted, having ſome virgins-honey ready, drop in ſome by degrees, continually ſtirring it, that all the ingredients may incorporate.

This being done, take a cullender, made with ſuch holes as will let through the compound, which ſhould be thin, and not lie in lumps; and the remainder of the paſte is to beat in a mortar again, and if it will not paſs through the holes, ſet it upon the fire again, and let it boil gently, and then try to force it through the cullender, till it comes to ſuch a quantity and quality as is fit for the number of birds you keep. Repeat this as often as you have occaſion.

This paſte may be mixed with any bird-meat whatever, and is a ſtrengthening cleanſing diet, which will continue good for ſix months if you pour a little melted clarified honey upon it.

PASTES FOR FISHING, are variouſly compounded, almoſt according to the angler's own fancy; but there ſhould always be a little cotton wool, ſhaved lint, or fine flax, to keep the parts of it together, that it may not fall off the hook. White bread and honey will make a proper paſte for carp or tench. Fine white bread alone, with a little water, will ſerve for roach and dace; and mutton ſuet and ſoft new cheeſe for a barbel. Strong cheeſe with a little butter, and coloured yellow with ſaffron, will make a good winter paſte for a chub.

Other paſtes are made as follow: Take bean-flour, or, if that is not to be got, wheat flour, and the tendereſt part of the leg of a young rabbit, whelp, or kitten; as much virgin-wax and ſheep ſuet: beat them in a mortar till they are perfectly incorporated; then with a little clarified honey, temper them before the fire into a paſte. Some omit the bean and wheat-flour, others the virgin-wax and ſheep ſuet, only when they uſe it for carp.

Take ſheep's blood, cheeſe, fine white bread and clarified honey: make all into a paſte.

Take cherries without ſtones, ſheep's blood, fine bread, and ſaffron to colour it with, and make a paſte.

Take fat old cheeſe, ſtrong rennet, mutton kidney-ſuet, wheat-flour, and anniſeed-water; beat them all into a paſte. If it be for chub, add ſome roaſted bacon.

Take the fatteſt old cheeſe, the ſtrongeſt rennet, mutton kidney ſuet, and turmeric reduced into a fine powder; work all into a paſte. Add the turmeric only till the paſte becomes of a very fine yellow colour. This is excellent for chub, as are alſo the two following:

Take ſome of the oldeſt and ſtrongeſt *Cheſhire* cheeſe you can get, the crumb of a fine manchet, or *French* roll, and ſome ſheep's kidney-ſuet; put theſe in a mortar, and beat them into a paſte, adding as much clarified honey as will be ſufficient to ſweeten it.

Take a few ſhrimps or prawns, pull off their ſhells and ſkins, and beat the clear meat in a mortar, with a little honey, till it becomes a paſte. When you bait with a piece of this, let the point of the hook be but lightly covered.

Take fine flour and butter, with ſaffron to colour it, and make a paſte for roach and dace.

But among all the variety of paſtes, there is none ſo often uſed as the ſimple and plain one made with white bread and milk, which requires only clean hands.

The following obſervations concerning paſtes may be of uſe to a young angler, being all founded on experience:

In *September*, and all winter months, when you angle for chub, carp, and bream, with paſte, let the bait be as big as a large hazle nut: but for roach and dace, the bigneſs of an ordinary bean is ſufficient.

You may add to any paſte, aſſa-fœtida, oil of polybody of the oak, oil of ivy, oil of petre, gum ivy, and many other things, which ſometimes wonderfully increaſe your ſport.

When

When you angle with paſte, you ſhould chuſe a ſtill place, and uſe a quill float, a ſmall hook, a quick eye, a nimble rod and hand. The ſame rules hold in regard to all tender baits.

N. B. The ſpawn of any fiſh (ſalmon eſpecially) beat to a paſte, or boiled till ſo hard as to hang on the hook; or the fleſh of any fiſh beat to paſte, or cut into ſmall bits, is a choice bait for almoſt all fiſh.

Take coculus indicus, finely pounded, four ounces, mix it with cummin, old cheeſe, and wheat-flour, about two ounces of each; work them into a paſte with white wine, then divide it into pieces about the ſize of peaſe, which throw into ſtanding waters; all that taſte will preſently be ſtupified and ſwim to the top, ſo that you may catch them with your hands.

N. B. Some uſe brandy inſtead of wine, and put nux vomica, finely grated, into the compoſition.

Take goat's blood, barley-meal, and lees of ſweet white wine, mix them with the lungs of a goat, boiled and pounded fine; make the whole into pills, which throw into ponds or pits, and you may ſoon catch the fiſh, who will prove intoxicated. *See* ANGLING.

PASTERN OF A HORSE, the diſtance between the joint of the mane and the coronet of the hoof.

This part ſhould be ſhort, eſpecially in the middle-ſized horſes, becauſe long paſterns are weak, and cannot ſo well endure travel: ſome have paſterns ſo long and flexible, that the horſe in walking almoſt touches the ground with them, which is a great imperfection, and a ſign of little or no ſtrength, ſuch horſes not being fit for any kind of toil and fatigue.

PASTERN JOINT, the joint next a horſe's foot, which is ſaid to be crowned, when without being galled or hurt there is a ſwelling round it beneath the ſkin, in form of a circle, about half the breadth of one's finger.

It proceeds from a humour gathered by much travel, and ſhews that the horſe's legs have been too much uſed.

When the paſtern-joint ſwells after travelling, chafe it every morning and evening with a mixture of two parts of brandy and one of oil of nuts.

If the ſwelling be large, apply the red honey charge with a convenient bath; and if it be hard, lay on a poultice of rue boiled in thick wine.

PATER-NOSTER-LINE, [in Angling] is when ſix or eight very ſmall hooks are tied along a line, one half foot above each other.

PATTIN-SHOE, a horſe-ſhoe ſo called, under which is ſoldered a ſort of half ball of iron, hollow within: it is uſed for hip-ſhot horſes, and put upon a ſound foot, to the end, that the horſe not being able to ſtand upon that foot without pain, may be conſtrained to ſupport himſelf upon the lame foot, and ſo hinder the ſinews from ſhrinking, and the haunches from drying up.

They likewiſe clap pattin-ſhoes upon horſes that are ſprained in the ſhoulders.

PAW THE GROUND. A horſe paws the ground, when his leg being either tired or painful, he does not reſt it upon the ground, and fears to hurt himſelf as he walks.

PEACOCKS, are birds that ſerve rather to delight the eye than for profit: the beſt quality belonging to them is, that they cleanſe and clear the yard from venomous creatures, ſuch as ſnakes, adders, toads, newts, *&c.* which are their daily food; whence their fleſh becomes very unwholeſome, and is uſed at great feaſts more as a rarity than upon any other account. If you roaſt one of them ever ſo dry, ſet it by, and look on it the next day, it will ſeem blood-raw, as if it were not roaſted at all.

The hens generally lay their eggs abroad in hedges and buſhes, where the cock cannot find them, who otherwiſe will break them; therefore as ſoon as ſhe begins to lay, ſeparate her from the cock and houſe her till ſhe has brought forth her young, and the coronet of feathers begin to riſe in their foreheads, then turn them abroad, and the cock will cheriſh them, but not before. The hen's ſitting-time is juſt thirty days, and then any ſort of grain, with water, is good for her: before the chickens go abroad, feed them with good green cheeſe, and barley-meal, with water, and afterwards the dam will provide for them. The beſt time to ſet a pea-hen, is at the new moon, and if you ſet hen-eggs with hers ſhe will nouriſh them both equally: the chickens are ſo very tender, that the leaſt cold will kill them, therefore they ſhould not go abroad but when the ſun-ſhines. As for the feeding of peacocks, the labour may be ſaved, for if they go in a place where there is corn ſtirring, they will take care to have part: and as their fleſh is ſeldom or never eaten, there needs no care to be taken for the fattening them.

PEARCH, } is a fiſh that is hook-backed, ſome-
PERCH, } thing like a hog, and armed with ſtiff griſtles, and his ſides with dry thick ſcales. He is a very bold biter, which appears by his daring to adventure upon one of his own kind with more courage than even the pike.

Some ſay there are two ſorts of pearches, the one ſalt water and the other freſh; the firſt has but one fin on his back, the latter two, which is more than moſt fiſhes have.

They ſpawn but once a year, in *February* or *March*, and ſeldom grow to above two feet in length: his beſt time of biting is when the ſpring is far ſpent, at which time you may take at one ſtanding all that are in one hole, be they ever ſo many.

His baits are a minnow, or a little frog: but a brandling is beſt, if well ſcoured: when he bites give him time enough.

He biteth well all day long in cool cloudy weather, but chiefly from eight in the morning till ten, and from three till about ſix in the evening.

He will not bite at all times of the year, eſpecially in winter, for then he is very abſtemious, yet if it be warm he will bite then in the middle of the day, for in winter all fiſh bite beſt in the heat of the day.

If you rove for a pearch with a minnow, it muſt be alive, ſticking your hook through his upper lip, or back fin, and letting him ſwim about mid-water, or ſomewhat lower, for which purpoſe you muſt have a pretty large cork, with a quill on your line.

You muſt have a ſtrong ſilk line, and a good hook armed

armed with wire, ſo that if a pike ſhould come, you may be provided for him; and by this means ſeveral have been taken. Some carry a tin pot, or veſſel of about two quarts or three pints, in which they keep their minnows or gudgeons alive; the lid of the pot is full of little holes, ſo that you may give them freſh water without opening it, which ſhould be about every quarter of an hour, leſt they die.

If you take a ſmall caſting-net with you, you may at a caſt or two take baits enough to ſerve the whole day, without further trouble.

When you fiſh with a frog, you muſt faſten the hook through the ſkin of his leg, towards the upper part thereof.

The pearch is none of the leather-mouthed ſort of fiſhes, and therefore when he bites give him time enough to pouch his bait, leſt when you think all ſure he breaks hold, and ſo you loſe your fiſh.

The beſt place to fiſh for him is in the turning of the water, or eddy, in a good gravel ſcour, where you will not fail of them, and ruffs.

If you would take a pearch, you muſt take notice, that this fiſh feeds well and bites freely. Bait the ground where you fiſh, over night, with lob-worms chopt in pieces; and in the morning when you come to the place, firſt plumb the depth, then gage your line, and bait your hook with a red knotted worm, or a minnow, which is reckoned the beſt; put the hook in at the back of the minnow betwixt the fiſh and the ſkin, that the minnow may ſwim up and down alive, being buoyed up with a cork or quill, that the minnow may have liberty to ſwim a foot off the ground.

Theſe directions being carefully followed, the angler need not fear his deſired ſucceſs.

PEARL; called alſo pin, and web, or any unnatural ſpot or thick film over a horſe's eye; proceeds from ſome ſtroke or blow received, or from the fire or dam.

The pearl is known by a little round thick white ſpot, like a pearl, (from which it took its name) growing on the ſight of the eye.

As for the cure, it is the ſame as for BLOOD-SHOTTEN EYES, *which ſee*.

PEARL, (with Hunters) is that part of a deer's horn which is about the bur.

PEDIGREE OF A HORSE. A true racing pedigree, according to the rule of the preſent time, ought to prove under the hand of the breeder, that the horſe has deſcended from anceſtors of genuine racing blood, without the intervention of a ſingle baſtard croſs. If the pedigree be long, it is common to take it for granted that there is blood ſufficient, although there be no mare mentioned in it, which has proved her blood by her having actually raced; but uſually all the horſes are reputed runners or brothers of ſuch. The greater number of mares which have raced, contained in a pedigree, the ſurer and more valuable, no doubt, it muſt be, particularly if the laſt-mentioned be ſpecified as a reputed racer, or a natural Arabian or Barb. A pedigree of one ſingle deſcent is held ſufficient, when the ſire and dam are named as reputed and tried runners; otherwiſe a ſhort pedigree of three or four deſcents, would not conſtitute a horſe thorough-bred; it might ſerve for a hunter.

It is yet eaſy to conceive how liable the pedigree of a horſe muſt be both to error and impoſition, and that the beſt proof of true blood muſt ever conſiſt in performance. Various accidental baſtard croſſes have occurred in our racing breed, at different periods, chiefly diſtant ones; and they are frequently eaſy enough diſtinguiſhable in the figure of the ſtock, by a critical eye.

PELT. The ſkin of the beaſt.

PERAMBULATION OF A FOREST, is the ſurveying or walking about the foreſt by juſtices, or other officers thereto appointed, in order to ſet down the limits or bounds of it.

PESATE, PESADE, OR POSADE, is when a horſe in lifting or raiſing his fore-quarters, keeps his hind legs upon the ground without ſtirring, ſo that he marks no time with his haunches till his fore-legs reach the ground.

This motion is the means to fix his head and his haunches, to make him ply and bend his fore-thighs, and to hinder him from ſtamping and clattering with his feet.

PESTILENT CONSUMPTION, in horſes, is a diſtemper which happens to a mare, when ſhe is near her foaling time, by reaſon of a phlegmatic humour that contracts about the matrix, occaſioned by groſs feeding; and is known by her dulneſs, pining, and deſire to be laid, and the like. Remedy:

Take a pint of aqua vitæ, half an ounce of tobacco, and a ſprig or two of ſpurge-laurel; boil them together; and then, ſtraining out the liquid part, give it her faſting, and it will oblige her to caſt out the maſs of phlegm, or at leaſt the cauſe that diſturbs her: but, by reaſon ſhe will be ſomewhat ſickiſh when ſhe has caſt, give her half a pint of ſallad oil, and the like quantity of canary, and keep her in a warm ſtable, with maſhes and good dry meat, a day or two.

PHEASANT, a bird about the bigneſs of a cock, having a crooked bill and feathers of various colours; its fleſh is delicious, and much coveted. To judge aright of this bird for eating, a cock, if young, has a ſhort ſpur; if old, a ſharp ſmall ſpur; ſee that it be not cut or pared; if fat, it has a vein on the ſide of the breaſt under the wing; if new, a fat firm vent; if you touch it hard with your finger, it will peel; then if young it has a ſmooth leg, and a fine ſmooth grain on the fleſh; if old, it has a rugged wrinkled grain on the fleſh, and full of hairs like an old yard hen; if ſhe be full of eggs, ſhe will have a faſt and open vent; if not full, a cloſe vent.

PHEASANT-TAKING; a rural diverſion, performed with nets in their crowing time, which is about the end of *February*, and in *March*, before they begin to breed: it is done either generally or particularly; the firſt is, when the whole eye, *viz.* the old cock and hen, with all their young ones, or powts, as they flock or run together in thick woods or coppices, are taken; or particularly, when none but the old, and ſuch of the young as are of age fit for coupling, are taken; ſo that you cannot have any aſſurance with your nets to ſtrike

at

at more than one or two at a time; for the pheaſant is of a melancholy, ſullen diſpoſition, and when once they have coupled, do not accompany in flocks as other birds.

In order to the taking pheaſants with the greater eaſe, you muſt be acquainted with their haunts and uſual breeding-places, which are in young, thick and well grown coppices, free from the annoyance of cattle or path-ways; for being of a very timorous nature, they eſteem the ſtrength of their covert their only ſafety, and do not abide or breed in open or plain fields, nor under the covert of corn fields, low ſhrubby buſhes, or in large and tall trees.

Having found their haunts, next you are to find their eye, or brood; and here you are to obſerve, that pheaſants come out of the woods and coverts thrice a day, to feed in freſh paſtures, green wheat, or other grain, and that is about ſun-riſing, about noon, and a little before ſun-ſet. Now the courſe to be followed, is to go to that ſide of the wood where you ſuppoſe they make their ſallies, and watch the places where they come out; or by ſearching their haunts; for you may ſee the young powts in that ſeaſon flock and run together after the hen like chickens. Again, if you go to their haunts early in the morning or late in the evening, you will hear the old cock and hen call their young ones, and the young ones anſwer them, and accordingly direct your path as near as you can to the place where they are, then lie down as cloſe as poſſible, that you may not be diſcerned; but withal, obſerve how they lodge together, the better to know how to pitch your nets with the greater advantage, both of wind, weather, and place; and take care that all be done as ſilently as poſſible, otherwiſe they will betake themſelves to their legs, and not to their wings, unleſs forced to it by a cloſe purſuit.

But the moſt certain way to find them out, is to have an artificial pheaſant-call, wherein a perſon ſhould be very expert in the imitation of their notes, and the time when, and to what purpoſe they uſe them, which calls are much the ſame as hens uſe in clucking their chickens.

The chief time for uſing the call, is in the morning early, or about ſun-ſet, at which time they ſeek their food, and then the note muſt be to call them to food; but though theſe are the beſt times, yet the call may be uſed at other times, only altering the notes for calling them together, or the like.

Having the perfect uſe of the call, the knowledge of their haunts, and the times to take them, chuſe ſome private place not to be diſcovered, and then call at firſt very ſoftly, leſt any ſhould be lodged very near you, and be affrighted at your loud note; but if nothing reply, raiſe your note higher and higher till it be extended to the utmoſt compaſs, and if any be within hearing they will anſwer in as loud a note as your's, provided it be tunable, or elſe all will be ſpoiled.

As ſoon as the pheaſant anſwers, if it be at a good diſtance, creep nearer and nearer, ſtill calling, but not ſo loud; and as you advance nearer, ſo will the pheaſant to you, ſo that you will come in ſight of her, either on the ground or at perch, always imitating her in her true note; then ceaſe calling, and ſpread your net between the pheaſant and yourſelf in the moſt convenient place you can find, making one end of the net faſt to the ground, and holding the other in your hand by a long line, ſo that when any thing ſtrains it, you may pull the net cloſe together; which done, call again, and as ſoon as you perceive the pheaſant come under your net, raiſe up and ſhew yourſelf, upon which being affrighted, ſhe will ſpring, and ſo become entangled in the net.

In caſe you have divers pheaſants anſwer the call, and that from ſeveral parts of the wood, then keep your firſt ſtation, and as you hear them to make towards you, ſo get your nets ready, ſpreading them conveniently about you, viz. one pair of nets on one ſide and another on the other, lying cloſe without any noiſe, only of your call, till you have allured them under your nets, and then ſtand up to affright them as aforeſaid, that they may be entangled in your nets.

Another way to take pheaſants, which is reckoned much better than the former, is, to be provided with a ſtale pheaſant, a live cock, which muſt be ſecretly tied down to your net, who by his crowing will draw others in: you muſt lie concealed in ſome buſh or ſecret place, and when you ſee any pheaſant come to your net, then draw your line, and the net will fall on him and take him.

To take pheaſants by ſnares; when you have found their paſſage out of the wood to their uſual places of feeding, there plant a little ſtake, with a couple of ſnares of horſe-hair, one to lie flat on the ground for their feet, and the other about the height of their head, to take them by the neck; and in caſe there ſhould be more paſſes than one you muſt do the like to every one of them: then fetch a compaſs about, and when you are in a direct line with the pheaſant and the ſnare that you have fitted, there make a gentle noiſe to affright them.

If by their dunging and ſcraping you perceive that they frequent any place, you may then make uſe of ſuch hedge-rows as are directed to take fowl with lines and bird-lime, only plant your running-lines from them of a convenient height, and ſtill place one to lie flat to entangle their legs.

To take pheaſants or partridges, and ſo preſerve the game in a man's own ground: when you perceive any eye of pheaſants, or covey of partridges, frequent ſuch and ſuch ground, go thither, and in ſome place thereof, diſtant from a hedge, buſh, or gate, about forty or fifty paces, pitch up four ſticks, each a foot long, in a ſquare, and in the middle of the ſticks ſcatter four or five handfuls of oats, barley, or wheat, and as you walk through the grounds from the ſticks, ſcatter a few corns, which may ſerve as a train to draw on the game to the great heap in the middle of the ſticks: now the pheaſants and partridges coming to feed according to their cuſtom, will ſoon find out the train, and conſequently the great bait; they will not fail to return thither next morning, in hopes of another repaſt, againſt which time let it be laid ready for them, and pitch by every one of the four ſticks, a buſh of furze; if they eat the ſecond time, which you may diſcern by their dung, notwithſtanding the

the furze-buſhes, then againſt the next coming croſs ſome lines of packthread, in form of a net; and if for all this they come and eat, you may be ſure to take them when you pleaſe with the following device. *See* Plate IX.

Take away the ſticks, furze-buſhes, and packthread, and there pitch the net deſcribed as follows:

The four main ſupporters of the net, A, B, C, D, muſt be fixed ſtrongly in the ground, that the net may be lightly ſpread on the top: the four ſides of the net muſt be ordered in the ſame manner as ſhall be now directed by the example of one of them, according to the deſcription of the aforeſaid figure; lift up the ſide of the net deſigned by the letters E, F, over the top of the net that is ſpread, for the ſide muſt lie flat, but ſtand ſloping like a pent-houſe, ſupported by ſmall twigs, the bottom faſtened in the earth, and the cord or verge of the net reſting on them; then place the four furze-buſhes at each corner of the net, the more to embolden them: and be ſure the running cord of the net be exact and right; the two ends thereof muſt be tied to a ſtrong cord, deſcribed by the letter G, which cord muſt reach to the next buſh or ſhelter where you lie concealed, but within view of the net; when all is fixed, ſpread the bait as formerly, but try once or twice how the net will draw, that upon occaſion all may be in good order; the beſt time to wait their coming is at break of day, when they are all buſy in eating the bait; then draw your line with a quick motion, and preſently fix it to the buſh where you are; and make all poſſible haſte to the net to prevent their eſcaping.

If you would preſerve a breed in your grounds, kill the cocks, and keep the hens till towards lent, in ſome convenient room, and then put them out into your grounds, and they will ſoon find cocks for a breed.

There is another way found moſt effectual for the taking of pheaſants in the winter-ſeaſon, provided there is no ſnow: get a net in the form of a caſting-net, but larger, with the meſhes about five inches wide; then take ſome peas or wheat, and knowing their haunts, which will be in young coppices of about three or four years growth; in ſuch places ſeek out their path, by their droppings or dung, which paths generally lead from the young coppices to thoſe that are older; and having found out any path, lay about a pint of the corn in the place, obſerving where you lay it, ſo that they may come to eat; thus do for ſeveral days for about a fortnight, by which time they will be ſo accuſtomed to it that they will come to expect ſome food, and by this means, all, or moſt of the pheaſants in that part, will be gathered to it.

Having thus trained them, and that you certainly know when you come in the morning that they have been there, which will be found by their eating and the dung, then and in ſuch places ſet your nets, only one in one place, which is done thus, tie the top of your nets to a bough, then ſpread it at the bottom, and peg it down to the ground, on all parts except one, which muſt be raiſed up above a foot and a half, like an arched door, with an aſhen ſtick; alſo fix to the ſaid arch ſeveral rods made of hazle, with the taper ends to the earth, within the net, ſo that the pheaſants may come in by parting the ſticks, but not get out again.

Having thus ſet your nets, which muſt be made of coarſe thread, ſuch as rabbit-bays, and of a tanned colour, by putting them into a tan-pit, cover your nets with boughs to prevent them from ſeeing them; and be ſure to ſet them ſome diſtance in the wood. The uſe of the nets is from the beginning of *May* to the latter end of *October*.

PHEASANT-HAWKING. A rural diverſion, managed with a goſhawk in coverts, of which none but thoſe of a ſtrong and able body, with ſpirit and courage, are fit; for this flight is different from that in the champaign fields, where the hawk and the game are always in ſight; ſo that you are to make her to the pheaſant and ſuch like ſort of fowl, that always frequent the woods, coverts, and the like obſcure places, which hinders the ſight, which ſhould be your guide in the flight. For the better effecting of this, you muſt be very circumſpect as to the place you firſt enter in, to the end ſhe may be well guarded, and kept from taking any diſlike or offence at the dogs, which if ſhe does at the firſt entrance, it will be difficult to bring her to endure them again; therefore to divert any ſuch ill quality at firſt, ſhe muſt be better managed, followed and governed, than in the field, ſo that if you would have her make a perfect hawk, and to be bold and venturous in thick woods with the Falconer, the dogs, and the game, you muſt make a good choice of the time, place, and dogs.

The time ſhould be early in the year, about *January*, *February*, or *March*, before the approach of the leaf; but the beſt months for pheaſant-hawking, are *November*, *December*, and *January*, after which you muſt be preparing her for the mew, that ſhe may be early mewed, to fly in the field the next ſeaſon for partridges.

Having made choice of the place to fly your hawk in, and that you have let her go into her flight, be ſure to command your dogs behind you until you have found her, and if ſhe has killed the game, it is ſufficient; if not, but that you find her on the ground, out of an eagerneſs of the ſport (as many will be at the firſt entrance) if there be any tree that ſhe may well ſee from it, ſet her thereon, otherwiſe keep her on your fiſt, and beat for it again; then if ſhe flies and kills it, keep the dogs back until you have found her, and ſuffer her to plume and take her pleaſure for a time; then gently call in your dogs and walk about her, encouraging her with your voice, that ſhe may be acquainted with the noiſe; and when you ſee it convenient, ſtoop to it upon your knees, and rending the chaps, give her blood in the throat, which will much pleaſe her; pare away alſo the hard brain-pan from the reſt, and give her the head in her foot to eat, the ground hiding the body from her: then having your dog (which muſt be under great command) cloſe by, when ſhe has done, and begins to look about her, then throw the pheaſant amongſt them, that ſhe may, together with ſome words of rebuke from you, make them give way with fear unto her; but let them

be in her ſight, and having ſufficiently taken her pleaſure, take the pheaſants gently from her, leaving the head in her foot, and let her eat it on the ground where the quarry lay, only reſerving a little to take her to your firſt withal; then put on her hood and reward her, by which means you will much win her love to you. She will, according to theſe directions, with a good keeper, fair flying, and two or three ſtaunch ſpaniels, be brought in a ſhort time, to good perfection in this ſport.

Again, in order to embolden your hawk, to make her take a pheaſant from the perch with courage, obſerve the directions following: before you fly her provide a dead pheaſant or live one, which is beſt; take it with you into the wood, and when you are diſpoſed to call your hawk for her ſupper, and as ſhe is drawing and attending after you for the ſame, having a convenient pole ready for your purpoſe, call your ſpaniels about you to make them bay, and ſuddenly breaking the neck of the pheaſant, lift it up upon a bough, that the hawk may have ſight of it, and with your voice call and encourage her to come in and ſeize it, and if ſhe pulls it down, be ſure that you rebuke the dogs in ſuch manner, and keep them ſo at command, that they give her way at her deſcending, and that ſhe may plume and take her pleaſure thereon, which will ſo embolden her in a ſmall time, that when ſhe ſees a pheaſant take perch, ſhe will immediately ſeize it and pull it down; nor will ſhe be afraid of the dogs, for when they are once managed and brought into good ſubjection, they will know their duty, and be fearful of tranſgreſſing, ſo that if you are abſent you may venture them, but remember, by all means, to have no ſtrange dogs, for one may ſpoil your ſport, by drawing the reſt into errors, and cauſing them to hunt after any thing; nor is it convenient to hunt with many ſpaniels, for two or three couple are enough to range and beat about a large wood, and to perch a pheaſant.

PHEASANT-POWTS. Young pheaſants; for the driving and taking of which within nets, when you have found out an eye of them, place your nets croſs the little paths and ways they have made, which are much like ſheep tracks; and, if poſſible, you ſhould find out one of their principal haunts, which may be eaſily known by the bareneſs of the ground, their mutings, and the feathers which lie ſcattered about; and always take the wind with you, for it is their cuſtom to run down the wind; place the nets hollow, looſe, and circular-wiſe, the nether part muſt be faſtened to the ground, and the upper ſide lie hollow, ſo that when any thing ruſhes in, it may fall and entangle it.

Having ſo fixed the net, go to the haunts, and if you find the eye ſcattered, with your call draw them together, and when you find they begin to cluck and pipe to one another, then forbear calling, and take an inſtrument, by ſome called a driver. (*See* Plate V. fig. 6,) which is made of ſtrong white wands, or oſiers, ſuch as baſket-makers uſe, which muſt be ſet in a handle; in two or three places it muſt be twiſted or bound about with ſmall oſiers, according to the figure. With this driver, ſo ſoon as you ſee the pheaſants gathered together, make a great noiſe on the boughs and buſhes about you, which will ſo frighten them, that they will all get cloſe together, and run away a little diſtance, and ſtand to hearken; then make the ſame noiſe a ſecond time, which will make them run again, and continue the ſame till you have driven them into your nets, for they may be drove like ſheep; but if it happens that they take a contrary way, then make a croaking noiſe, as it were in their faces, which will preſently turn them the right way, as you would have them; but in uſing the driver, firſt obſerve ſecreſy, in keeping yourſelf out of their ſight, for if they eſpy you, they will run and hide themſelves in holes, under ſhrubs, and will not ſtir till night. Secondly, take time and leiſure, for raſhneſs and overmuch haſte ſpoils the ſport. *See* PHEASANTS.

PHLYCTÆNE IN HORSES. A diſorder after inflammation of the eyes; there ſometimes remains either puſtules filled with purulent matter (theſe are called puſtules) or they are filled with a tranſparent humour, and then they are called phlyctæne.

When puſtules ariſe on the tunica conjunctiva, they are reddiſh at the firſt, and afterwards white; but when they are on the cornea, they are duſky at the firſt, and, in time, turn white.

The phlyctæne are tranſparent, hence they take the appearance of the part they lie on; they are more ſuperficial than the puſtules, and are not ſo difficult to remove.

All the danger from puſtules, and from phlyctæne, is their becoming ulcers of a bad kind, which heal with difficulty.

The cure is the ſame in both caſes. In the beginning you may attempt to diſperſe them, by waſhing them two or three times a-day with a ſolution of ten grains of ſaccharum ſaturni, in four ounces of roſe-water: and when they give way, you may waſh them with equal parts of brandy and water: but if they neither diſperſe nor burſt ſoon, the beſt way is to open them with a lancet, and then dreſs them with the ſapphire water.

Sapphire Water.

Take of lime-water, one pint: crude ſal ammoniac, one drachm; let them ſtand in a copper veſſel, or with a few bits of copper, until the water is of a blue ſapphire colour.

PIAFFEUR, is a proud ſtately horſe, who being full of mettle or fire, reſtleſs and forward, with a great deal of motion, and an exceſſive eagerneſs to go forwards, makes this motion; the more that you endeavour to keep him in, he bends his legs up to his belly: he ſnorts, traverſes, if he can, and by his fiery action ſhews his reſtiveneſs, when ſome, though very improperly, ſay he dances.

Such horſes as theſe, or ſuch as are bred to paſſage upon a ſtraight line, are much admired in carouſals and magnificent feſtivals.

PICKER. HORSE-PICKER, is an iron inſtrument five or ſix inches long, bent or crooked on one ſide, and flat and pointed on the other, uſed by grooms to cleanſe the

the inſide of the manage horſes feet, and pick out the earth and ſand that has got into them.

PIGEON. A domeſtic bird, very well known, and fed in order to be eaten: I ſhall firſt mention thoſe that are bred in pigeon or dove-houſes; ſome there are, for want of the conveniency of ſuch houſes, that are bred in coops and dove-cotes; in general we reckon but two ſorts of pigeons, the wild and the tame; the tame rough-footed ones differ not much from the wild, only they are ſomewhat bigger, and more familiar: the wild uſually perch upon trees, being ſeldom ſeen on the ground, and are very good food.

By wild pigeons, are meant thoſe that breed in woods, ſea-rocks, &c. and by the tame, ſuch as are bred in dove houſes.

It is an obſervation made by a learned naturaliſt, that the pigeon is one of thoſe birds which, from its great fecundity, has in ſome meaſure been reclaimed from a ſtate of nature, and taught to live in habits of dependance. It is true, indeed, its fecundity ſeems to be increaſed by human aſſiduity, ſince thoſe pigeons that live in their native ſtate, in the woods, are not near ſo fruitful as thoſe in our pigeon-houſes nearer home. The power of increaſe in moſt birds depends not only upon the quantity, but alſo the quality, of their food; many inſtances may be ſhewn, that man, by a judicious alteration of diet, and ſupplying food in plenty, and allowing the animal a proper ſhare of freedom, has brought ſome of thoſe kinds which ſeldom lay but once a year, to become much more prolific.

The beautiful varieties of the tame pigeon are ſo numerous, that it would be a fruitleſs attempt to deſcribe them all; for human art has ſo much altered the colour and figure of this bird, that pigeon-fanciers, by pairing a male and female of different ſorts, can, as they expreſs it, breed them to a feather. Hence we have the various names expreſſive of their ſeveral properties, ſuch as, carriers, tumblers, powters, horſemen, croppers, jacobines, owls, nuns, runts, turbits, barbs, helmets, trumpeters, dragons, finnikins, &c. all birds that at firſt might have accidentally varied from the ſtock-dove; and, by having theſe varieties ſtill improved by pairing, food, and climate, the different ſpecies have been propagated. But there are ſeveral ſpecies of the wild pigeon, which bear a near affinity to the ſtock-dove, yet differ ſufficiently from it to require a diſtinct deſcription. The dove-houſe pigeon breeds every month; but, when the weather is ſevere, and the fields covered with ſnow, it muſt be ſupplied with food. At other times it may be left itſelf; and generally repays the owner for his protection. The pigeon lays two white eggs, which produce young ones of different ſexes. When the eggs are laid, the female ſits fifteen days, not including the three days ſhe is employed in laying, and is relieved at intervals by the male. The turns are generally pretty regular. The female uſually ſits from about five in the evening till nine the next morning; at which time the male ſupplies her place, while ſhe is ſeeking refreſhment abroad. Thus they ſit alternately till the young are hatched. When hatched, the young only require warmth for the firſt three days; a taſk which the female takes entirely upon herſelf, and never leaves them except for a few minutes to take a little food. After this they are fed for about ten days with what the old ones have picked up in the fields, and kept treaſured in their crops, from whence they ſatisfy the craving appetites of their young ones, who receive it very greedily.

This way of ſupplying the young with food from the crop, in birds of the pigeon-kind, differs from all others. The pigeon has the largeſt crop of any bird, for its ſize; which is alſo peculiar to its kind. In two that were diſſected by an eminent anatomiſt, it was found, that, upon blowing the air into the wind-pipe, it diſtended the crop, or gullet, to an enormous ſize. This was the more ſingular, as there did not appear to be the leaſt communication between thoſe two receptacles By what channel the air blew into the crop, we are wholly ignorant; but we have ocular demonſtration, that theſe birds have a power of ſwelling the crop with air, and thoſe called croppers diſtend in ſuch a manner, that the bird's breaſt appears larger than its body. The neceſſity for it in theſe ſpecies is pretty clear, though the mechaniſm is not known. Pigeons live entirely upon grain and water: theſe, being mixed together in the crop, are digeſted in proportion as the bird lays in its proviſion. Young pigeons are very ravenous, which neceſſitates the old ones to lay in a more plentiful ſupply than ordinary, and to give it a ſort of half-maceration in the crop, to make it fit for their tender ſtomachs. The numerous glands, aſſiſted by air, and the heat of the bird's body, are the neceſſary apparatus for ſecreting a milky fluid; but, as the food macerates, it alſo ſwells, and the crop is conſiderably dilated. If the crop was filled with ſolid ſubſtances, the bird could not contract it; but it is obvious the bird has a power to compreſs its crop at pleaſure, and, by diſcharging the air, can drive the food out alſo, which is forced up the gullet with great eaſe. The young uſually receive this tribute of affection from the crop three times a day. The male for the moſt part feeds the young female, and the old female performs the ſame office for the young male. While the young are weak, the old ones ſupply them with food macerated ſuitable to their tender frame; but, as they gain ſtrength, the parents give it leſs preparation, and at laſt drive them out, when a craving appetite obliges them to ſhift for themſelves; for, when pigeons have plenty of food, they do not wait for the total diſmiſſion of their young; it being a common thing to ſee young ones fledged, and eggs hatching, at the ſame time, and in the ſame neſt.

Though the conſtancy of the turtle-dove is proverbial, the pigeon of the dove-houſe is not ſo faithful, and, having become ſubject to man, puts on incontinence among its other domeſtic qualities. Two males are often ſeen quarrelling for the ſame miſtreſs; and, when the female encourages the freedoms of a new gallant, her old companion ſhews viſible marks of his diſpleaſure, quits her company, or, if he approaches, it is only to chaſtiſe her. Many inſtances have been known when two males, being diſſatisfied with their reſpective mates, have thought fit to make an exchange, and have lived in peace and friendſhip with the new

objects of their choice. So rapid is the fertility of this bird in its domeſtic ſtate, however incredible it may appear, that, from a ſingle pair, fourteen thouſand ſeven hundred and ſixty may be produced in the ſpace of four years. The ſtock-dove, however, very rarely breeds more than twice a year: for, as the winter months approach, their whole employ is for ſelf-ſubſiſtence, ſo that they cannot tranſmit a progeny. But, their attachment to their young is much ſtronger than in thoſe which often breed. This is owing, perhaps, to their affections being leſs divided by ſo great a number of claims.

Pigeons are very quick of hearing, have a very ſharp ſight, and when purſued by the hawk or kite, and are obliged to exert themſelves, are exceedingly ſwift in flight. It is the nature of pigeons to love company and aſſemble in flocks, to bill in their courtſhip, and to have a plaintive note.

Mr. DUHAMEL aſſerts, "that pigeons do not feed upon the green corn, and that their bills have not ſtrength enough to ſearch for its ſeeds in the earth; but only pick up the ſcattered grains, which would be parched up by the heat of the ſun, or infallibly become the prey of other animals." He further adds, "that, from the time of the ſprouting of the corn, pigeons live chiefly upon the ſeeds of wild uncultivated plants, and therefore conſiderably leſſen the quantity of weeds that would otherwiſe encumber the ground; as is manifeſtly evident from a juſt eſtimate of the quantity of grain neceſſary to feed all the pigeons of a well-ſtocked dove-houſe." But the facts alledged by Mr. WORLIDGE and Mr. LISLE, in ſupport of the contrary opinion, are incontrovertible. Mr. LISLE relates that a farmer of his acquaintance, who was a man of ſtrict veracity, aſſured him he had been witneſs to an acre ſowed with peas, and the wet weather prevented their being harrowed in, every pea was taken away in half a day's time by pigeons; and Mr. WORLIDGE ſays, "it is to be obſerved, that, where the flight of pigeons fall, there they fill themſelves and away, and return again where they firſt roſe, and ſo proceed over a whole piece of ground, if they like it. Although you cannot perceive any grain above the ground, they know how to find it, and conſequently commit great depredations on the property of the farmer."

I ſhall now briefly mention the names and deſcriptions of thoſe pigeons that are moſt eſteemed, and proceed to give directions for their management.

The Engliſh Powter.—This bird derives its name from being originally bred in England, and is a croſs breed between a horſeman and a cropper; and frequently pairing their young ones with the cropper, has added great beauty to this bird, and raiſed its value among the fanciers.

Thoſe compoſed of different colours are moſt eſteemed, as the blue pied, black-pied, red-pied, and yellow-pied. All theſe properties riſe in eſtimation, according as they are more or leſs beautifully variegated.

The Dutch Cropper.—This pigeon was originally bred in *Holland;* the body is thick, clumſy, and ſhort, as are alſo the legs, which are feathered down to the feet: they have a large pouch or bag hanging under their beak, which they can ſwell with wind, or depreſs, at pleaſure; their crop hangs low, but is very large; they are ſo looſe-feathered on the thighs, as to be ſtiled flag-thighed; they ſeldom play upright, and ſtand wide on their legs; they are gravel-eyed, and ſuch bad feeders of their young, that, as ſoon as they have fed off their ſoft meat, it is neceſſary to place their young under a pair of ſmall runts, dragons, or powting horſemen, who will rear them with more care than their real progenitors.

The Uploper—Is alſo a native of *Holland;* it nearly reſembles the *Engliſh* powter in all its properties, only it is ſmaller; it has a round crop, in which it generally hides its bill; it has ſmall ſlender legs, with its toes ſhort and cloſe together, on which it trips ſo exactly, when walking, as to leave the ball of the foot quite hollow; it plays very upright, is cloſe thighed, and it is the cuſtom of this pigeon, on approaching the hen, to leap to her with his tail ſpread, from whence the name uploper is derived.

The Pariſian Powter—Though brought into *England* from *Bruſſels*, is originally a native of *Paris;* it partakes of the nature of the *Engliſh* powter, though it is not ſo well made; its body and legs are ſhort; it has generally a long, but not a large, crop; and is thick in the girt.

The Powting Horſeman.—This is what the fancy term a baſtard-bred pigeon, and is produced between the horſeman and the cropper; and, agreeable to the number of times that their young ones are bred over to the cropper, they have the appellation of firſt, ſecond, or third, breed; and the more frequently this method is practiſed, the greater is the improvement the crop receives from it.

The Carrier—Is rather larger than moſt of the common-ſized pigeons; their feathers lie very cloſe, even, and ſmooth; their fleſh is naturally firm, and their necks long and ſtraight, ſo that, when they ſtand upright on their legs, they ſhew an elegant gentility of ſhape, far exceeding moſt other pigeons, who, when they ſtand, cringe themſelves up in an uncouth manner. From the lower part of the head, to the middle of the lower chap, there grows out a white, naked, fungous, fleſh, which is called the wattle, and is generally met by two ſmall protuberances of the ſame luxuriant fleſh, riſing on each ſide of the under chap; this fleſh is always moſt valued when of a blackiſh colour.

The circle round the black pupil of the eyes, is commonly of a red brick-duſt colour, though they are more eſteemed when of a fiery red; theſe are alſo encompaſſed with the ſame ſort of naked fungous matter, which is very thin, generally of the breadth of a ſhilling, and the broader this ſpreads, the greater is the value ſet upon them; but, when this luxuriant fleſh round the eye is thick and broad, it denotes the carrier to be a good breeder, and one that will rear very fine young ones. The gentlemen of the fancy are unanimous in their opinion, in giving the bird the title of "the king of the pigeons," on account of its graceful appearance and uncommon ſagacity.

Extraordinary attention was formerly paid to the training

training of theſe pigeons, in order to be ſent from governors in a beſieged city to generals that were coming to ſuccour it; or from princes to their ſubjects with the news of ſome important tranſaction. In this country theſe aërial meſſengers have been made uſe of for a very ſingular purpoſe, being let looſe at places of execution, at the moment the fatal cart was drawn away, to notify to diſtant friends the exit of the unhappy criminal; like as, when ſome hero was to be interred, it was a cuſtom among the ancient *Romans* to let fly an eagle from the funeral pile, to make his apotheoſis complete.

In order to train a pigeon for this purpoſe, take a ſtrong, full fledged, young, carrier, and convey it in a baſket or bag about half a mile from home, and there turn it looſe; having repeated this two or three times, then take it two, four, eight, ten, or twenty miles, and ſo on till they will return from the remote parts of the kingdom. For, if they are not practiſed when young, the beſt of them will fly but inſecurely, and ſtand a chance of being loſt: be careful that the pigeon, intended to be ſent with the letter, is kept in the dark, and without food, for about eight hours before it is let looſe, when it will immediately riſe, and, turning round, as is their cuſtom, will continue on the wing till it has reached its home.

The Horſeman.—This bird is in ſhape and make very like the carrier, only leſs in all its properties; its body ſmaller; its neck ſhorter; neither is there ſo much luxuriant encruſted fleſh upon the beak and round the eye, ſo that the diſtance between the wattle and the eye is much more conſpicuous in this pigeon than in the carrier. They are alſo more ſubject to be barrel-headed and pinch-eyed. This ſpecies of the pigeon is decorated with a variety of colours; but the moſt diſtinguiſhed, are the blue and blue-pieds, which generally prove the beſt breeders. Theſe pigeons, eſpecially when young, ſhould be regularly flown twice a-day, and, as they gain ſtrength, ſhould be let looſe and put on the wing without any other in company, and they will fly four or five miles diſtance, in a few minutes, ſweeping over a very large circuit. This is what the fanciers term going an end: this method is of eſſential ſervice to them, eſpecially when they are in training for the homing uſe. Theſe are the ſort of pigeons chiefly made uſe of in this country, for the deciding of bets, or the conveying of letters. The true genuine carriers are at this time very ſcarce, and of too great a value to be flown, except upon great emergencies. There is another ſpecies called the

Dragon.—It is bred between a tumbler and a horſeman, and the ableſt fanciers are unanimous in their opinions, as to its being of a baſtard-ſtrain, and that, by frequently matching their breed to the horſeman, they will acquire great ſtrength and agility. This pigeon is an excellent breeder, and makes a very tender nurſe; for which purpoſe they are frequently kept as feeders for rearing of young powters, Leghorn-runts, and ſome other pigeons, who either breed ſo faſt that they cannot conveniently give their young ones due attendance, or are deſtitute of that natural fondneſs, which is the characteriſtic of this bird.

The Tumbler.—Theſe pigeons by their flight afford great ſatisfaction, for beſides the pleaſure they give by their tumbling they will frequently riſe to ſuch an amazing height in the air as to be almoſt imperceptible to the keeneſt eye; and there is one peculiar property belonging to them, that is, they will not ramble far, like the horſeman, but if good birds, and familiarized to each other, will keep ſuch cloſe company, that a flight of a dozen may be covered with a handkerchief. At this height, eſpecially if the weather be warm and clear, they will continue upon the wing for four or five hours at a ſtretch; it is reported that ſome well-bred pigeons of this ſort have flown for nine hours ſucceſſively, when they have been up at their higheſt pitch; the favourite ſort ſeldom or never tumble but when they are beginning to riſe, or when they are coming down to pitch.

The Almond Tumbler.—It is a very beautiful and valuable ſpecies, and derived its origin from the common tumblers, (which it ſo reſembles in ſhape and make, as to render any deſcription unneceſſary,) by being judiciouſly matched ſo as to ſort the feathers, to wit, yellows, duns, whites, blacks, black-grizzled, black-ſplaſhed, *&c.*

The Leghorn Runt.—This is a noble, large, full-bodied, pigeon; it is cloſe feathered, ſhort in the back, very broad-cheſted, and frequently meaſures ſeven inches and a quarter in the length of its legs; when it walks, it carries its tail raiſed up in the nature of a duck's, but hangs it down when it plays. It is gooſe-headed, and hollow eyed, with a longer neck than any other pigeon, which it carries bending after the manner of a gooſe; the eye is encircled with a thin ſkin broader than that of the Dutch tumbler; the beak is very ſhort, with a ſmall wattle over the noſtril, and the upper chap projects a little over the under.

The Spaniſh Runt—Is a ſhort, thick-legged, flabby-fleſhed, looſe-feathered, bird, with a remarkably long body; ſome of them meaſuring twenty-three inches in length from the apex of the beak to the extreme end of the tail; and it does not carry itſelf ſo upright as the Leghorn-runt. The feathers of this are ſo uncertain, and of ſuch a variety of colours, that a judgment cannot be formed of the ſort by the colour, though ſome of the beſt are reported to be of a blood-red or mottled colour.

The Runt of Frieſland.—This bird is ſomewhat larger than a middle-ſized runt; its feathers are all inverted, and ſtand the wrong way; if this pigeon has its fanciers, it muſt be becauſe it is uncommon and diſguſtful, for the bird really makes a frightful appearance; they are at preſent very ſcarce in this country.

The Trumpeter.—This pigeon is nearly as big as a middle-ſized runt, and very like it in ſhape and make; its legs and feet are covered with feathers; the crown of its head is very round, like that of the finnikin and nun, only it is larger, and, the larger the head is, the more it is eſteemed, as being uſually more melodious; it is in general pearl-eyed, and black mottled as to its feathers; but the ſureſt mark to diſtinguiſh a good trumpeter is the tuft of feathers which ſprout from the root of the beak, and, the larger this tuft grows, the

greater

greater is the value ſet upon the bird. The more falacious it is, the more it will trumpet; it derives its name from its imitating the ſound of a trumpet after playing, which it always does in the ſpring of the year.

This bird and the enſuing ſpecies of pigeons, are by the fancy denominated toys.

The Spot.—It has its name from a ſpot above its beak, upon the top of its head: the tail-feathers are for the moſt part of the ſame colour with the ſpot, but the body is generally all white.

The Laugher.—This bird in ſhape and make very much reſembles a middle ſized runt; its plumage is generally red-mottled, but ſometimes it is blue, and it has a very bright clear pearl-eye, inclining to white.

The Nun.—Its head is almoſt covered with a veil of feathers, which gives it the name of the nun. Its body is chiefly all white; its head, tail, and the ſix flight-feathers of its wings, ſhould be entirely red, yellow or black: that is, when its head is red its flight and tail ſhould be red alſo; and, when its head is yellow, its flight and tail ſhould be yellow; aud, when its head is black, its flight and tail ſhould alſo be of the ſame colour.

The Hermit—Is ſometimes larger than the nun; the head, tail, and flight-feathers of the wings, for the moſt part, preſerve an uniformity of colour, either yellow, red, blue, or black; but all the reſt of its body is generally white; ſo that the moſt material difference between it and the nun is, the former has no hood on the back part of the head, and is frequently gravel-eyed.

The Jacobine—Is uſually called, for ſhortneſs, the jack; it has a range of inverted feathers on the back part of its head, which turns towards the neck, like the cap or cowl of a monk, from whence this bird derives its name of jacobine, or capper, as ſome call it; the religious of that order wearing cowls or caps, joined to their garments, for the covering their heads.

The Ruff.—The ruff has a longer beak, and larger head; it is alſo rather a larger pigeon than the laſt; the irides of its eyes are in ſome of a gravel, in others of a pearl, colour; the chain does not flow ſo near to the ſhoulders of its wings, though both the hood and chain are longer, but are nothing near ſo compact as the others, and are eaſily diſturbed with every puff of wind; they likewiſe fall more backward off the head, in a rumpled diſcompoſed form, and from this the pigeon receives its name.

The Turbit.—It is a ſmall pigeon, very little bigger than a jacobine: it has a round button head, and the ſhorter the beak is, the better; it has a tuft of feathers growing from the breaſt, which opens and ſpreads both ways, ſprouting out like the chitterlin of a ſhirt; this is called the purle; it has alſo a gullet which reaches from the back to the purle; this bird is admired according to the largeneſs of its purle.

The Owl—Is rather leſs than a jacobine,, with a gravel-eye, and a very ſhort hooked beak, much reſembling that of an owl, and from this the bird derives its name. The purle in this bird is rather larger, and opens and expands itſelf more like a roſe than that of the turbit's; but in every other reſpect, both in ſhape, make, and plumage, this bird is ſo very like the turbit, the beak excepted, as to render any further deſcription needleſs.

The Capuchin.—A pigeon which has its name from an order of bareheaded monaſticks; it has a longer beak than the jack, and is ſomewhat larger in its body; it has no chain, but a very pretty hood, and is in plumage and other properties the ſame as the jack. Some fanciers poſitively affirm it to be a diſtinct ſpecies; others again as confidently affirm it to be a baſtard-breed, between a jacobine and ſome other pigeon; however it is beyond a doubt, that a jack and another pigeon will breed a bird ſo exactly ſimilar to it, as will greatly embarraſs the fanciers of this firſt perſuaſion to diſtinguiſh between it and what they term their ſeparate ſpecies. Though all the pigeons of the toy kind have their reſpective admirers, the capuchin is but lightly eſteemed by the fancy in general.

The Finnikin.—In make, ſhape, and ſize, it differs very little from the common runt; the crown of its head is formed very like the head of a ſnake; it has a gravel-eye, with a tuft of feathers growing on the back part of its crown, which falls down its neck, hanging like a horſe's mane; it has a clean leg and foot, and its plumage is always blue or black pied.

The Turner—Is in ſo many reſpects like the finnikin, that little more remains to be ſaid about it, than to point out the difference between them; it is not ſnake-headed, and the tuft on the back part of the crown is wanting; and, when the wanton fit is on it, and it plays to the female, it turns only one way, whereas the finnikin turns both.

The Broad Tail Shaker.—This pigeon, eſpecially when luſtful, has a frequent tremulous motion, or ſhaking in the neck; which, joined to the breadth of its tail when ſpread, gives the bird the name of the broad-tail ſhaker.

It has a beautiful long taper neck, which it erects in a ſerpentine form, rather leaning towards its back, ſomewhat like that of the ſwan. Its beak is very ſhort; it is exceedingly full breaſted, and has a tail that is compoſed of a great number of feathers, very ſeldom leſs than four and twenty, but never exceeds ſix and thirty, which it ſpreads in a very ſtriking manner, like the tail of a turkey-cock, and raiſes it up to ſuch a degree, that the tail appears joined to the head.

The Narrow Tail Shaker.—It is a baſtard ſtrain between the broad tail ſhaker and ſome other pigeon; it has a longer back and ſhorter neck than that of the laſt-mentioned bird: it has alſo a leſs number of feathers in its tail, which it does not ſpread like the other, but lets them fall, as it were, double, the one ſide folding over the other, in the nature of a fan when three parts opened, and is apt to let it droop very much.

The Barb.—This bird is rather larger than the jacobine; it has a ſhort thick beak, like a bull-finch, encruſted with a ſmall wattle, and a naked circle of a thick ſpongy red ſkin round its eyes, like that of the carrier; when the feathers of the pinion are inclinable to a dark colour, the irides are red, as is obſervable in ſome others of the pigeon tribe.

The Mahomet—Differs from the barb in nothing but the

the colour, which is of a fine white. In other reſpects it bears a ſtrong reſemblance.

The Lace Pigeon.—It is about the ſize of the common runt, and not unlike it in ſhape, but the colour of its plumage is white.

The Frill-Back.—It is leſs than the common runt, though very much like it in ſhape. The plumage of this bird is alſo white.

The Smiter.—This pigeon, in ſhape, make, and diverſity of plumage, nearly reſembles the tumbler, the ſize excepted, it being a much larger bird.

The Chineſe Pigeon.—This bird in ſize is rather leſs than the common ſwallow; the ſides of the head are yellow, but the top and the ſpace round the eye are of an aſh colour; it has a blueiſh aſh-coloured beak, and the irides of its eyes are of a fine white.

Directions for erecting a Pigeon-Loft.

Let it be a principal maxim to place the front facing the ſouth or ſouth-weſt, as being the warmeſt quarters; but, as a room is ſeldom built for that purpoſe ſolely, it may be proper to obſerve, that any place, where there is room enough, may be made to anſwer the purpoſe. Some break a hole through the roof of the houſe, and there lay a platform of the ſize they think proper; but, in doing this, particular care muſt be taken to erect proper fences to keep them ſecure from the cats. Nevertheleſs, it is eſſentially neceſſary to train up a cat on purpoſe to be kept in the loft; therefore procure a kitten, and as it increaſes in growth, and begins to notice the pigeons, heat an egg and put it to its noſe, and get a dead pigeon with which beat the cat ſoundly; repeat this two or three times, and the ſight of an egg or dead pigeon will ſo intimidate the cat, that it will neither touch the pigeons nor eggs, eſpecially if it is well ſupplied with food: a cat thus broke-in will be found exceedingly uſeful in a loft, and will keep it clear of rats and mice, which are very deſtructive to the pigeons and their eggs. Be careful not to overſtock the loft, and always allow at leaſt two holes or breeding-places for every pair: for, if they are cramped for want of room, they will not ſit quiet, nor breed ſo well as when they have a ſufficiency of room allowed them. We cannot better illuſtrate this remark than in the information given by Mr. Moore, who relates, that he was well acquainted with a gentleman, who out of nine pair of breeding-pigeons could not raiſe three young ones, during the courſe of a whole ſpring and ſummer, only by keeping them crowded in too ſmall a loft; but, in the beginning of *September*, he removed the ſame pigeons into a larger loft, and they bred well even then and through the greateſt part of the enſuing winter, which is an indiſputable proof of the bad effects of crowding too many in too contracted a habitation. The reaſon is obvious, ſalacious cocks will be often playing to, and fretting, the others as they ſit, and others that want room to ſit will fight for neſts, and by this means both eggs and young ones are deſtroyed.

In erecting the breeding places, let the ſhelves be at leaſt fourteen inches in breadth, and the diſtance between ſhelf and ſhelf twenty inches, that tall powters may not be compelled to crouch for want of height, and ſpoil their carriage by getting an ill habit of playing low; let partitions be fixed upon theſe ſhelves, leaving the ſpace of three feet between each partition, having a board nailed againſt the front, which ſerves as a blind on both ſides of every partition; and by this method there will be two neſts in the length of every three feet, and the pigeon will ſit dark and private. Some place a partition in the middle of each neſt, which is of ſervice in hindering the young ones from running to the hen, and cooling her eggs, when ſhe ſits at the other ſide; for in breeding-time, when the young ones are about three weeks old, the hen will lay again, if a good breeder, and leave the young ones to the care of the cock. For the eaſier cleaning out the neſts, ſome have them built without any blind, being entirely left open in front; but, as the pigeon does not like to be diſturbed when ſitting, and an open fronted neſt is liable to ſome other inconveniences, we can ſay nothing in favour of it. Others again, if the loft will admit of it, ſtrenuouſly recommend the making of the neſts on the floor, eſpecially for the better ſort of pigeons, as being far more convenient than either of the former two, in preventing thoſe accidents which ſometimes happen to the young pigeons, by their falling out of their neſt, and thereby bruiſing or laming themſelves, and alſo giving them an opportunity of being fed by other pigeons, as well as their parents, which is ſometimes the caſe.

Let every neſt be furniſhed with an unglazed earthen pan, or ſtraw baſket, both of which are made and adapted for this uſe, and the ſize ſhould be in proportion to the pigeon it is intended for; a pan proper for a tumbler, or any other ſmall pigeon, ought to be three inches high, and about eight inches over at the top, ſloping like a waſh-hand baſon towards the bottom; and theſe ſhould be varied in proportion to the ſize of the pigeons; in fixing the pan or baſket in the breeding-place, put a ſmall wedge of wood, or a brick, againſt the front of it, that the pigeons may get on and off the neſt, without treading on the edges of the pan or baſket, and by that means tilt out the eggs; when the hen has hatched, be careful not to handle the young ones when you want to look at them, for the handling of young pigeons often brings a ſcouring upon them. The baſket is preferred by ſome, as being much the warmeſt, and not ſo ſubject to crack the egg when freſh laid; but the advocates for the pan ſay, that theſe difficulties are eaſily obviated, by a proper ſupply of clean ſtraw, or frail, made ſoft and ſhort; the frail as it lies hollow, and laſts a great while, is preferable to the ſtraw; for, when the young ones are able to get out of their neſt, take hold of the ends of the frail, and ſhake off the dung and filth, and the frail will be fit for uſe again. It is not improper in this place to inform the reader, that gravel ſhould be ſifted on the ſhelves and floor, which the pigeons are fond of picking, and it is very wholeſome for them, and alſo gives the loft a more creditable appearance, and makes it much eaſier to be cleaned; beſides, in keeping the pigeons clean they are cleared from fleas and other vermin, which are the conſtant attendants of naſtineſs and filth,

filth, being principally bred and nouriſhed by the dung.

As for the trap or airy, it is always built on a platform or floor of deals, on the outſide of the houſe, and is the common paſſage for the going out and coming in of the pigeons: it is made of laths, which ſhould be nailed ſo cloſe together as not to permit a mouſe to creep through. Some of theſe are made very ſmall, with a door in the middle, and one on each ſide: which three doors are ſo contrived, that by the pull of a ſingle ſtring, like a piece of machinery, all draw up together: this contrivance is chiefly deſigned to trap ſtray pigeons, who are allured into it by the tempting baits of hemp-ſeed, or rape and canary, which is ſtrewed there for that purpoſe, and frequently has its deſired effect. Some make two ſmall ſwinging doors, on each ſide of the trap, fixed by wires, called bolting wires, ſo that any pigeon may get into the trap, but cannot return back again; and alſo leave a ſquare hole open at top, called a tipping hole, which is made to anſwer the ſame purpoſe as the ſwinging doors; but, unleſs the trap is ſo ſituated as to be quite ſecure from the cats or rats, both theſe are dangerous contrivances: for either of the laſt mentioned animals may, by ſome means, as eaſily enter the trap as the pigeons can, and, if they once find their way in, they will make ſad devaſtation amongſt the pigeons and their eggs. Some of theſe places are built ſo wide and lofty, as to admit eight or ten people at a time to ſtand or walk about in them, and have two or three rows of ſhelves on every ſide for the pigeons to reſt upon, and are deſigned to give room and air to thoſe pigeons that are not ſuffered to fly abroad. When theſe places are ſo large they are called airies, and are of great ſervice in keeping confined pigeons in a good ſtate of health.

In order to complete the furniture of the loft, it muſt be provided with proper bottles and ſtands for water, and alſo with proper meat-boxes. It ſhould be a large egg-bellied glaſs-bottle, with a long neck, big enough to contain three or four gallons of water, though the ſhape of it is immaterial, for a piece of paſte board hung by a ſtring about three inches above the bottle will always hinder them ſettling on it and dunging it. This bottle ſhould be ſet upon a three-legged ſtool or ſtand, having a hollow at the top for the belly to reſt in, that the mouth may deſcend into a ſmall pan underneath, by which means the water will run from the mouth of the bottle, ſupplying the pan with water as faſt as the pigeons drink it out; this method will keep the water freſh and ſweet, and the water will ſtop running when its ſurface meets the mouth of the bottle; the reaſon of which is obvious, though an explanation would be rather too philoſophical: but we adviſe thoſe who are not yet poſſeſſed of this contrivance, to make a trial of it, and it will experimentally prove the truth of this aſſertion.

The box for the meat ſhould be made in the ſhape of a hopper; and, in order to hinder them from dunging the grain, it muſt have a cover over the top, and then it will ſerve as a preſervative for their food: from hence the meat deſcends into a ſhallow ſquare box, and this is uſually fenced in with rails or ſmall holes on each ſide, to prevent them from ſlirting the grain amongſt their own dung which lies about the floor. Some leave it quite open for the benefit of the young pigeons, that they may the more eaſily find their way to it.

Obſervations on the Diet proper for Pigeons.

The common dove-houſe pigeon, being removed as it were but one ſtep from a ſtate of nature, is hardy, and will ſeek its own food, living upon almoſt any grain; yet it is far different from the fancy-birds, who require ſome attendance, being much more delicate, and always uſed to tender treatment: therefore, as ſome obſervations on their food is neceſſary, I ſhall ſubmit the following.

The pigeon may be fed with various ſorts of grain, as wheat, barley, oats, peas, horſebeans, vetches, tares, rape and canary, or hemp-ſeed. But of all grains old tares prove to be the beſt ſuited to the nature of theſe birds; for new tares ſhould be given very ſparingly, eſpecially to young pigeons, as they are very liable to put them into a ſcouring, though old tares will have the ſame effect, if by any accident they have been mixed with ſalt, or damaged by ſea-water; for, though pigeons are very fond of ſalt, too much is pernicious.

Horſebeans are eſteemed the next beſt food to tares, but the ſmaller theſe are the better: there is a *French* ſort called ſmall ticks, which make good food; but I would adviſe thoſe who feed their pigeons with beans, ſometimes to mix a few vetches with them, and to have all the beans ſplit.

Wheat, barley, oats, and peas, ought only to be given now and then for a change of diet, as they are very ſubject to ſcour them. There is a mixed diet made of tares, beans, and peas, which is called *Scotch* meat, with which ſome fanciers feed their pigeons for cheapneſs, but care ſhould be taken that the beans are not too large. Rape and canary, and hemp-ſeed, is a diet that pigeons are immoderately fond of; but this, for many ſubſtantial reaſons, muſt not by any means be made a conſtant diet.

Diſeaſes incident to Pigeons; with their Method of Cure.

In treating of the diſeaſes relating to pigeons, we ſhall chiefly follow the ſentiments of the late Mr. MOORE, who was not only a very judicious fancier, but alſo a gentleman of the faculty, who ſpared no pains to make himſelf acquainted with the diſeaſes of theſe birds, and to apply the beſt method of cure; therefore, without farther apology, I ſhall take him for my guide.

Corruption of the Egg in the Uterus.—This uſually ariſes from the over ſalaciouſneſs of an unmatched hen, and proceeds ſometimes from high feeding. Such a hen will very frequently breed eggs without any connection with the male, though they ſeldom bring them to perfection, and ſometimes they do not bring them forth, ſo that they decay in the womb. The only remedy

medy for this is a low diet, if you think the diſorder aroſe from high feeding, and to match her to a cock in time.

The Wet Roop.—In this caſe give them three or four pepper-corns once in three or four days, and ſteep a handful of green rue in their water; and, as this is very wholeſome, you may let all the other pigeons drink of it.

The Dry Roop—Is uſually known by a dry huſky cough, that always attends it, and is ſuppoſed to proceed from a cold, to which they are very ſubject, particularly during the time of moulting; to remedy this give them every day three or four cloves of garlic.

The Canker.—This uſually takes its riſe from the cocks pecking and fighting one another; though ſome fanciers ſay, that giving them water in a metal or tin veſſel will bring on this diſorder. In order to remove it, take burnt alum and honey, and rub the part affected every day: but, when this has not its deſired effect, diſſolve five grains of *Roman* vitriol in half a ſpoonful of wine vinegar, mix it with the former medicine, and anoint the part affected. Some people ſtrip off the ſcurf, and make it bleed, before they apply the remedy; but we give it as our opinion that the medicine is ſearching enough without that.

When the fleſh or wattles round the eyes of the carrier, horſeman, or barb, are torn or pecked, bathe them with ſtale urine for ſeveral days; if this does not prove ſucceſsful, diſſolve two drachms of alum in one ounce and a half of water, and waſh the aggrieved part: but, when the caſe is very obſtinate, mix half an ounce of honey with twenty grains of red precipitate, and anoint the part, and it will certainly cure it.

Pigeons are infeſted with ſmall inſects, particularly during the ſummer-months, which the fanciers call lice; when this happens, fumigate their feathers well with the ſmoke of tobacco, and it will certainly deſtroy them.

There is another kind of ſmall vermin, which are very pernicious, and frequently prove fatal to the young ones in the neſt, eſpecially when firſt hatched, by creeping into their ears, and hindering them from thriving; to prevent this, ſprinkle the duſt of tobacco in the neſt, and alſo over the young pigeons, and it will kill theſe vermin; they are called the blacks by ſome, and by others pigeon-bugs.

Gizzard-fallen.—Gizzard-fallen is when the gizzard ſinks down to the vent; the fancy in general think it proceeds from weakneſs, though we are of opinion that it is rather cauſed by feeding on too much hemp-ſeed. I know of no cure for this malady unleſs nature will co-operate with an alteration of diet, which in young pigeons it ſometimes does.

Navel-fallen.—Navel-fallen is when there is a ſort of bag hanging down near the vent. This diſtemper is frequently deſperate; and, if the giving of them clary, or ſome other ſtrengthening things of a ſimilar nature, does not effect a cure, I can recommend nothing that will.

Pigeons are ſubject to be pap-arſed, as it is termed by the fancy. This malady ariſes either from a natural weakneſs, or from a lecherous cock's mounting his hen too frequently. There is no cure for this, excepting flying, and the parting of them ſometimes to make them more abſtemious. Young pigeons and carriers that are not much flown are moſt liable to it.

Some pigeons, as powters and croppers, are apt to overcharge or gorge themſelves, that is, when they have faſted rather longer than uſual, they will eat ſuch a quantity that they cannot digeſt it, but it will ſtay and corrupt in the crop. When this happens, put the gorged bird in a tight ſtocking, with its feet downwards, ſtroaking up the crop, that the over-loaded bag of meat, may not hang down: then hang up the ſtocking on a nail, keep it in this poſture, only ſupplying it with a little water now and then, till the food is digeſted, and this will frequently cure it; but, when it is taken out of the ſtocking, put it in a coop or open baſket, feeding it but very moderately, for if it is left to itſelf it will gorge again. When this method does not ſucceed, ſlit the crop from the bottom with a ſharp pair of ſciſſars or pen-knife, take out the corrupted meat, waſh the crop, and ſew it up again. This method has often proved ſucceſsful, though the crop will loſe its roundneſs. Some take off the crop by ligature, that is, tying that part of the crop that contains the undigeſted food tight round with a ſtring, and let it remain till it drops off. This method never fails, but the ſhape of the crop is entirely ruined for ever after.

The Vertigo,—or, as it is commonly called by the fancy, the megrims, is a diſeaſe, in which the pigeon flutters about at random, with its head reverted in ſuch a manner, that its beaks reſts on its back. This malady is pronounced incurable by moſt fanciers; and, if it baffles the power of the following remedy, it is ſo: Infuſe in half a pint of water one ounce and a half of ſpirit of lavender and a drachm of the ſpirit of ſal ammoniac that has been diſtilled with quick lime; in the courſe of a day force down the bird's throat about a ſpoonful and a half of this compoſition; and, if the bird finds benefit, repeat the medicine every third or fourth day, only leſſening the quantity, and in the intermediate days give it a clove of garlic, or three or four pepper-corns; if after a trial you perceive no amendment, it will be beſt to kill it out of the way.

When pigeons do not moult freely, or are at a ſtand in their moulting, ſo that they do not throw their feathers kindly, it is a never-failing ſign of a bad ſtate of health. To amend this, the following method will be of ſervice: Put them in ſome warm place, and pull out their tail feathers; mix a good quantity of hemp-ſeed with their common food; alſo throw a little clary or ſaffron into their water, though ſome prefer cochineal or elder-berries for this uſe. Pigeons are alſo liable to a ſcouring, particularly in moulting-time, which makes them very weak, faint, and thin: as a remedy for this, give them pump water with a lump of chalk in it, or force the quantity of two horſe-beans down their throats every day. If this fails, pour ſome ſmith's forge-water down their throats, which is very binding. The grit that remains in the trough under a grind-ſtone, where

they grind edge-tools, is very good for a ſcouring, but muſt be uſed in ſmall quantities, it being of a very coſtive nature.

The diſtemper called the ſmall pox, which breaks out in eruptions or puſtules, full of yellow matter, on their bodies, wings, and legs, is cured by opening the puſtules, and applying burnt alum and honey, or touching them with *Roman* vitriol. When pigeons are ſick, heavy, or drooping their wings, give them, once a day, a couple of ſpiders rolled up in butter; and, if you think it ſafe to venture them, let them fly.

When pigeons are lame, or the ball of their foot ſwelled, either from cold, they being cut with glaſs, or any other accident, ſpread ſome Venice-turpentine on a piece of brown paper, put it to the part affected, and it will heal in a few days

The Fleſh-Wen—Is a fleſhy tumour which ariſes on the joints of the legs or wings: this may be either opened or cut off: if opened, take out the kernel, and waſh it with alum and water; if cut off, the part may be afterwards healed with almoſt any ſalve.

The Bone-Wen—Is a hard tumour growing upon the joints, as the laſt: this is very rarely cured, and the bird affected with it will not breed. Some attempt to cure it with a mixture of black ſoap and quick lime; but, if this is ſuffered to lie on too long, or made too ſtrong, it will eat off the leg, or any other part where it is applied, it being a ſtrong cauſtic.

The Core.—This malady is ſo called, from its reſemblance to the core of an apple; it is hard, and uſually of a yellow colour interſperſed with red, and is moſtly ſeated in the anus or vent. This muſt be ripened; to effect which, keep the pigeon looſe, by giving it a gentle purge of tobacco (a ſmall quantity will do;) this will ſometimes make them diſcharge the core themſelves; if not, when ripe it muſt be drawn out.

Theſe birds, particularly the common ſort, are frequently afflicted with ſcabs on the back and breaſt, which make the old ones ſo weak that they cannot fly abroad in ſearch of food, and abſolutely kill the young ones. The following recipe is recommended as a cure: A pound of dill-ſeed, a pound of fennel-ſeed, and the ſame quantity of cummin-ſeed; an ounce and a half of aſſafœtida, a quarter of a pound of bay-ſalt, and of common ſalt the ſame quantity; mix all theſe ingredients with ſome fine clean clay, together with a ſmall quantity of flour. This being prepared, bake it in two pots, and ſet it on a ſtand in the pigeon-houſe, and the birds will continue to peck it till they are cured.

The beſt Methods for preventing Pigeons from leaving their Habitation.

Lay near the pigeon-houſe a barrow full of loam; reduce it to the conſiſtence of pap, by mixing it with water, but brine is better; add to this a gallon and a half of the coarſeſt ſand, a peck of bay-ſalt, and a little ſalt petre; if the loam is beat up with water, it will require more ſalt than when brine is uſed for that purpoſe; if it is a good ſandy loam, leſs ſand will do; where loam cannot be procured, clay will anſwer the purpoſe, but then much more ſand will be wanted. The pigeons will be ſo fond of this little bank as not eaſily to leave it.

2. Take the head and feet of a gelt goat, boil them till the fleſh parts from the bone; take this fleſh, and boil it again in the ſame liquor, till the whole is reduced to a jelly: then put in ſome clean potter's earth, kneading the whole together to the conſiſtence of dough, which make into ſmall loaves, and dry them in the ſun or oven, but be careful they are not burnt; when they are dry, place them in the moſt convenient parts of the pigeon-houſe; when the pigeons will ſoon peck at it, and liking the taſte, will not leave it but with regret. Some make uſe of a goat's head boiled in urine, with a mixture of ſalt, cummin, and hemp.

3. Others make a repaſt of millet fried in honey, with the addition of a little ſalt and water, this compoſition is ſaid to have ſuch an effect on them, that they will never after leave their habitation; and is of great uſe in drawing ſtrange pigeons to it.

4. Laſtly, there is nothing ſuperior to the true and genuine ſalt-cat, if made as follows: Take ſifted gravel, brick-maker's earth, and the rubbiſh of an old wall; a peck of earth, or, if you uſe lime inſtead of rubbiſh, half the quantity will do; add to this a pound and a half of cummin-ſeed, a quarter of a pound of bay-ſalt or ſalt-petre: let theſe ingredients be well mixed together, with as much ſtale urine as will make a ſtiff cement. Let it be put into old tin pots, kettles, or ſtone jars, with holes in the ſides for them to peck at it, only let them be covered at the top to prevent their dunging it.

When pigeons are with egg, they are generally very fond of lime, which is of great uſe in hardening the ſhell of their egg, and by this means they are kept from pecking the mortar off the tops of houſes, though the damage they do is trifling, their beak not being long enough to looſen any tile that is properly fixed. The ſalt and urine provoke their thirſt, and, they being of a very hot nature, occaſions them to drink often, which is of great ſervice to them. The ſtrong ſmell of the cummin-ſeed pleaſes them much, keeps them at home, and allures others that are hovering about, and ſtraying from home. The oily nature of the earth is a great help to the diſcharge of their ſoft meat, when they are feeding their young ones; and the gravel ſcours their craws, and is of great ſervice in promoting digeſtion.

Pigeons are remarkably fond of ſalt, nor is there a cure for ſcarcely any of the diſorders to which they are ſubject, without the aſſiſtance of this ingredient; which proves the inſtinct that the wiſe Creator beſtows on animals, for the neceſſary preſervation of their welfare; and accounts for the extraordinary fondneſs pigeons have for the mortar that is found in old walls, which contains a ſalt little inferior to the common ſalt-petre: for which reaſon ſome place cakes of ſalt candied againſt the walls of their pigeon-houſes.

Diſtin-

Diſtinguiſhing Marks of a Cock and Hen Pigeon.

As it is a matter of ſome difficulty to form a right judgment whether a pigeon be a cock or hen, (for in this particular ſome of the ableſt and beſt fanciers have erred) in order, therefore, to clear up this point, I have drawn up the following rules; a proper obſervance of which, joined to a little experience, will ſoon enable the young fancier to become an adept in this particular.

1. The cock is diſtinguiſhable by his breaſt-bone, it being always longer and ſtouter than that of the hen.

2. His head and cheeks are broader and fuller, and he has a bolder look than the hen.

3. The vent in the hen, and the bone near the vent, is always more open than in the cock.

4. Among young pigeons, that which ſqueaks longeſt in the neſt generally proves to be a hen; and, where there are two in a neſt, the largeſt uſually turns out to be a cock.

The coo of the cock is longer, a great deal louder, and more maſculine, than the hen's; and the cock often makes a half round in his playing, which the hen ſeldom does, though a warm lively hen will ſometimes ſhew and play very like a cock, and when lecherous will even attempt to tread another pigeon.

Inſtructions for Coupling and Matching Pigeons.

It has always been obſerved, that pigeons are very conſtant, ſeldom or never ſuing for a divorce, when once mated to each other, except in times of long illneſs, death, or old age; yet it is ſometimes attended with difficulty to make the fancy-birds couple to your liking.

In order to effect this, let two coops be built cloſe together; theſe are commonly named matching-places by the fanciers; let there be a partition made of lath placed between them, that the birds may ſee each other, and it may eaſily be ſo contrived that the birds may feed out of the ſame veſſels: ſupply them well with hemp-ſeed, which will ſoon make them wanton, and, when you perceive the hen to ſweep her tail, and ſhew to the cock as he plays in the adjoining pen, you may then remove her to his pen, and they will ſoon agree. When this convenience is wanting, and you are compelled at firſt to put them both into one coop, be careful to put the cock in the firſt for four or five days, that he may get the maſter of the coop, particularly if the hen is a termagant, or elſe they will quarrel ſo much as to end in an irreconcilable hatred ever after. But, when the cock is once maſter of his houſe, he will always maintain it, and, by a ſtout and well-timed reſiſtance, make his miſtreſs very ſoon yield to his authority.

When pigeons are once matched, give them the liberty of the loft, and the privilege of fixing upon what neſt they pleaſe; but, when you have a mind to fix them to any particular neſt, make uſe of the following method: Get a machine made of lath, the length of the breeding-places; let this be incloſed with boards, both at bottom and top; this machine may project out as far as the loft will admit; one of the top boards muſt liſt up with hinges, for the conveniency of ſupplying them with food; this may be placed before any neſt, and the pigeons put in it; when they have remained in this ſituation about a week, let the machine be removed, which ought to be done in the night, and they will not leave the neſt.

The ſame method may be practiſed with ſucceſs, in order to prevent the ſtrain from being vitiated by an improper tread, which a very wanton hen will frequently admit of. Confine them by this method till the hen has depoſited both her eggs, then let it be removed, that they may enjoy their liberty, till the hen has fed off her ſoft meat, when ſhe will become ſalacious again, and muſt be confined as already deſcribed; and by this means the ſtrain will be kept up pure and unmixed. This method is attended with trouble, and is only worth beſtowing on the beſt pigeons; as for thoſe intended for the ſpit, it is of very little conſequence whether they are baſtardized or not.

Pigeon Act.

By the 1 James, c. 27. whoſoever ſhall ſhoot at, kill, or deſtroy, any dove or pigeon, with any gun or bow, or take, kill, or deſtroy the ſame, with ſetting-dogs or nets, or any ſnares, engines, or inſtruments whatſoever, ſhall, on being convicted, before two juſtices, by confeſſion, or oath of two witneſſes, be committed to gaol for three months, or pay for the uſe of the poor 20s. for every pigeon; or, after this commitment, become bound by recognizance, with two ſureties, before two juſtices, in 20l. each, not to offend in like manner again.

And by the 2 Geo. 3. c. 29. any perſon who ſhall ſhoot at, or by any means kill or take, with a wilful intent to deſtroy, any pigeon, he ſhall on conviction thereof, by confeſſion, or oath of one witneſs, before one juſtice, forfeit 20s. to the proſecutor; and, if not immediately paid, ſuch juſtice ſhall commit him to the houſe of correction, for any term not exceeding three months, nor leſs than one, unleſs the penalty be ſooner paid. Perſons who are convicted on this act, ſhall not be convicted by any former act, and proſecutions on this act muſt be commenced within two months after the offence was committed.

Theſe two abſtracts are given to inform the keepers of pigeons, of the laws in force to protect them; but more eſpecially to remove the vulgar error ſo prevalent among the lower claſs of people, that pigeons are a nuiſance, that they deſtroy a great deal of ſeed in the fields, grain in the rick-yards, and looſen the tiles on the tops of buildings; and that any perſon may ſhoot them, provided that he does not carry them away. The above acts are unrepealed, and in full force: conſequently every offender is liable to the puniſhments therein ſpecified.

To take Pigeons, Rooks, and Crows, upon new plowed or ſown Grounds.

Take a good number of ſmall twigs, of ſtrong wheaten ſtraw, of a good length, bird-lime them well, lay them on the ground where pigeons, *&c.* frequent, and they will ſoon be entangled with them; and in order to allure to your twigs or ſtraws, you may tie two or three pigeons to the ground, among the twigs.

Cut ſome ſheets of thick brown paper, each into about eight parts, making them up in the ſhape of a ſugar loaf, and lime the inſide of them three or four days before you intend to uſe them; put into each paper, near the bottom, three or four grains of corn, and lay theſe papers up and down the ground, as much as you can under clods of earth, early in the morning, before the pigeons, *&c.* come to feed. The more papers you lay, the greater you may expect your ſport. When the pigeons come to feed they will ſee the corn, and by thruſting in their heads to reach it, will get hoodwinked by the paper ſticking to their heads, which will occaſion them to take wing, and fly bolt upright till they have ſpent themſelves, when they will come tumbling down, and may be eaſily taken.

PIKE. A very long-lived fiſh, according to Lord BACON and GESNER, who ſay he outlives all other fiſh, which is a pity, as he is an abſolute tyrant of the freſh water. The largeſt are the coarſer food, and the ſmalleſt are always accounted beſt: this fiſh never ſwims in ſhoals, but reſts by himſelf alone, being naturally very bold and daring, and will ſeize almoſt upon any thing, even devour his own kind: he breeds but once a year, and ſpawns in *February* or *March*. The beſt ſort is found in rivers, the worſt in meres and ponds. His common food is either pickerel-weeds or frogs, or what fiſh he can get.

The pike is obſerved to be a ſolitary, melancholy, and a bold fiſh; melancholy, becauſe he always ſwims or reſts himſelf alone, and never ſwims in ſhoals or with company, as roach and dace, and moſt other fiſh do; and bold, becauſe he fears not a ſhadow, or to ſee, or to be ſeen of any body, as the trout and chub, and all other fiſh do.

And it is obſerved by GESNER, that the jaw-bones, and hearts and galls of pikes, are very medicinable for ſeveral diſeaſes, or to ſtop blood, to abate fevers, to cure agues, to oppoſe or expel the infection of the plague, and to be many ways medicinable and uſeful for the good of mankind; but he obſerves, that the biting of a pike is venomous and hard to be cured.

PIKE-FISHING. There are two ways to take the pike, by the ledger and the walking-bait. The ledger-bait is fixed in one certain place, and may continue while the angler is abſent; this muſt be a live bait, of fiſh or frog; of fiſh, the beſt is a dace, roach, or perch; of frogs, the yellowiſt is the beſt. In uſing the ledger-bait, if it be a fiſh, ſtick your hooks through his upper lip, and then faſtening it to a ſtrong line, at leaſt twelve or fourteen yards long, tie the other end of the line, either to ſome ſtake in the ground, or to the bough of a tree near the pike's uſual haunt; which done, wind your line on a forked ſtick, big enough to keep the bait from drawing it under water, all, except half a yard, or a little more; and your ſtick muſt have a ſmall cleft at the end, into which faſten your line, but ſo that when the pike comes, he may eaſily draw it forth, and have line enough to go to his hold, and pouch the bait.

But if the bait be a frog, put the arming wire in at his mouth, and out at his gills, then with a fine needle and ſilk ſew the upper part of his leg, with one ſtitch only, to your arming-wire, or tie his leg gently, above the upper joint, to the wire.

There is a way of trolling for pike, with a winch to wind it up; this fiſh being very ſtrong, your rod muſt not be too ſlender at top, where ſhould be placed a ring for your line to run through, which line is to be of ſilk, two yards and a quarter next the hook, it muſt be double, and ſtrongly armed with wire about ſeven inches: faſten ſome ſmooth lead upon the ſhank of the hook, and having placed it in the mouth of your fiſh-bait, with your lead ſink it with his head downwards, ſo move your bait up and down, and if you feel the fiſh at the hook, give him length enough to run away with the bait and pouch it, then ſtrike him with a ſmart jerk. Obſerve in trolling, to put your arming-wire in at the mouth of the gudgeon, (the beſt bait) and thruſting it along by the back, bring it out again by the tail, and there faſten it with a thread, having your reel in your hand, and your line fixed to your hook through a ring at the top of your rod; then move your bait up and down in ſome likely place in the water, as you walk gently by the river-ſide. When you feel him bite, be ſure to give him line enough, and not to ſtrike him too quick or fiercely, leſt you endanger your tackle, and loſe your fiſh: if you fiſh at ſnap, give him leave to run a little, and then ſtrike the contrary way to which he runs: but for this method of angling a ſpring-hook is beſt, and your tackle muſt be much more ſtrong than for the troll.

If you fiſh with a dead bait for a pike, take minnows, yellow frogs, dace, or roach, and having diſſolved gum of jey in oil of ſpike, anoint your bait therewith, caſting it where pikes frequent; after it has lain a little while at the bottom, draw it to the top, and ſo up the ſtream, and you will quickly perceive a pike very eagerly following it. They bite beſt about three in the afternoon, in clear water, with a gentle gale, in the middle of ſummer to the latter end of autumn, and in winter, all day long; and in the latter end and beginning of the ſpring, he bites moſt eagerly early in the morning, and late in the evening. *See* HUXING, ANGLING, *&c.*

PILLAR. Moſt great manages have pillars fixed in the middle of the manage-ground, to point out the center; but all manages in general have, upon the ſide or circumference, other pillars placed two and two, at certain diſtances, from whence they are called the two pillars, to diſtinguiſh them from that of the center.

PINCHING, (in Horſemanſhip) is when a horſe, ſtanding ſtill, the rider keeps him faſt with the bridle-hand, and applies the ſpurs juſt to the hair of his ſides.

Plate IX.

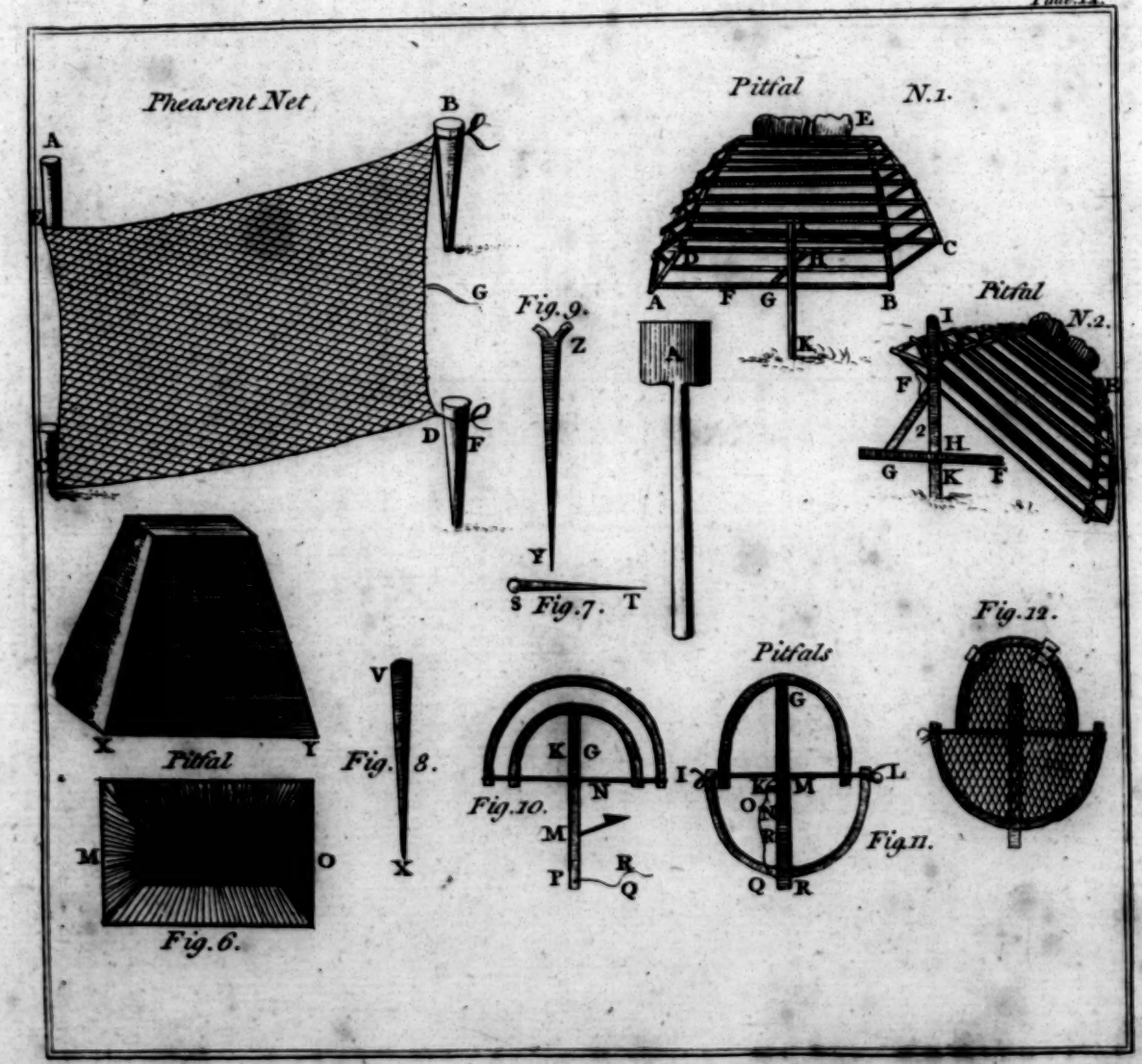
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Fig. 9.
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Fig. 8.
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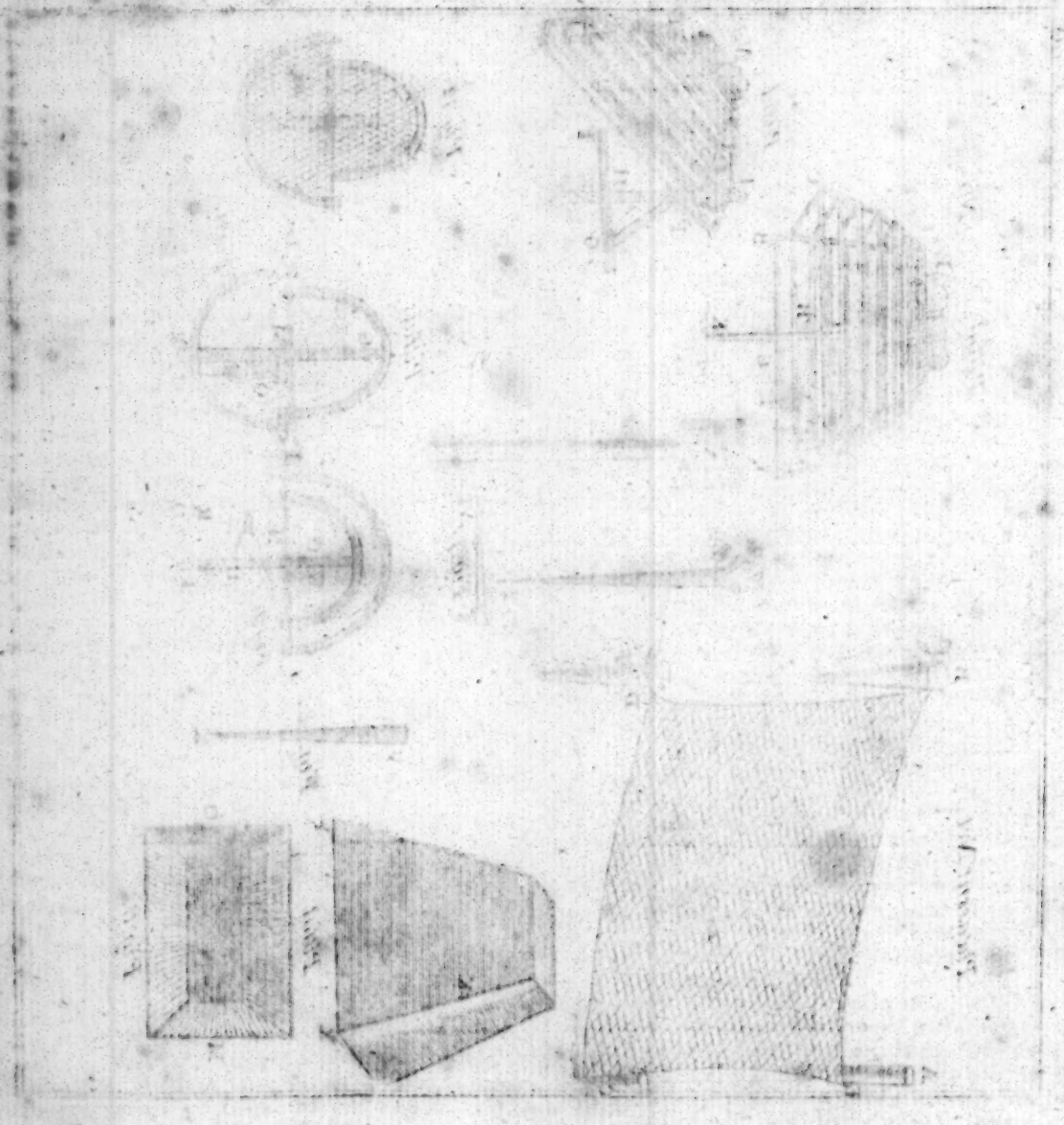
Fig. 11.
Q R
Fig. 12.



PIP. A diſtemper incident to hawks; it proceeds from cold and moiſtneſs in the head, or by feeding on groſs meats in the ſummer-time, that have not been waſhed well in cold water.

For the cure: give the hawk with her caſting at night, a ſcouring pill of agaric, or hiera picra, for two or three days together, and waſh her tongue with roſe-water, and anoint it for three or four days with oil of ſweet almonds; and when the pip is thoroughly ripe, *i. e.* when it is white and ſoft, take it off with a ſharp awl or bodkin, and afterwards anoint the wound with oil of ſweet almonds.

If the hawk has the pip in her foot, then caſt her, and cut out the core or corn in the ball of it, and apply a plaiſter of galbanum, white pitch, and *Venice* turpentine, ſpread on ſoft leather, and tied on ſo faſt that it may not come off, but yet not ſo ſtraight as to hurt her; then let her ſtand on a perch ſoft lined, keep her warm, and dreſs her three or four times a week till ſhe is well.

PISMIRES, in houſe or garden, &c. to deſtroy: Take the flour of brimſtone, half a pound; ſalt of tartar, four ounces; ſet them in an iron or earthen pan over a fire, till they become red-hot; cool them in fair water, afterwards dry and beat them to a fine powder, and infuſe a little of this powder in water; and, wherever you ſprinkle it, the piſmire will die, or fly the place.

PISSING OF BLOOD, (in Horſes) may proceed from divers cauſes, ſometimes by being ridden over-hard, or laboured beyond his ſtrength, and by carrying too heavy burdens on his body; at other times it may be by ſome vein broken in his body, on which blood will frequently iſſue out of his body; or it may proceed from ſome ſtone fretting upon his kidnies, and from ſeveral other cauſes.

For the cure: take knot-graſs, ſhepherd's-purſe, bloodwort of the hedge, polypody of the wall, comfrey, and garden bloodwort, of each an handful, ſhred them ſmall, and boil them in a quart of beer, to which add a little ſalt-leaven and foot, and give the horſe.

PISTE, is the tread or tract, that a horſe makes upon the ground he goes over.

PIT-FALL. A cheap device, with which you may take a whole covey of partridges, as well as ſingle ones, or indeed any other birds; there are pit-falls above, and under ground: the machine repreſented by the cut, is a ſort of cage, and made as in Plate IX. No. 1.

This device is compoſed of four ſticks, or pieces of wood. A, B, A, D, D, C, C, B, each about three feet long, and bored through within two inches of the end, with a hole big enough to turn one's little finger in it; they muſt be placed on each other, in a ſquare on the ground, and let into each other about half the thickneſs of the ſtick, that they may hold together, in ſuch a manner as to make four angles; then take two tough hazle rods, each four or five feet long, which muſt be fixed in the fore-mentioned holes, croſſing them over each other, that their other ends may be fixed in their oppoſite angles, as the corner ſticks in cages uſed to be laid; then you muſt have ſome light ſtraight ſticks, longer than each other by degrees, and about the bigneſs of one's finger, which you muſt compile one over another, the longeſt firſt, and the ſhorteſt laſt, up to the height of the croſſing of the two rods, ſo that the whole will reſemble a kind of bee-hive; but you muſt remember to leave a hole at the top, to be covered or uncovered with ſome ſtone, or the like, to take out the birds when they are in the pit-fall.

You muſt at leaſt bind the end of your ſticks to the two rods with oſiers, ſtrong packthread, or ſmall cord, and this is all that belongs to the pit-fall; but for the erecting or piling it up, do thus: take a ſtick of about three feet long, and about the bigneſs of one's little finger, which muſt be ſmoothed above and below, then tie the end F, No. 2, with a little cord, to the middle of the foundation-ſtick A, B, the other end of the ſtick F, G, muſt have a ſmall notch in it about two inches from the end; then provide another ſtick I, K, about a foot and a half long, with a ſmall cord fixed at the upper end thereof, where you may place another little ſtick H, half a foot long, having the end G ſhaped like the ſharp end of a wedge; the lower end of the ſtick K muſt be fixed in the ground, which being done, the fore-part of the pit-fall D, C, will come to be lifted up, and then place the end H of the little ſtick under the cage to ſupport it, and the other end, ſhaped like a wedge, into the notch of the ſtick F, G; then let the pit-fall reſt gently on it, and it will be ready ſet, with one ſide lifted up about a foot high, and the ſtick F, G, will be about three inches from the ground; then ſtrew your bait under the cage.

The ſame pit-fall will ſerve to take ſmall birds, hares, rabbits, or vermin.

When you have found out that partridges frequent either vineyards, woods, or ſome other place, you muſt, before you ſpread your net, pitch upon a proper ſtand for yourſelf, either near a hedge, a knot of oſiers, or ſome buſhes, ſo that your pit-fall may not be openly ſeen, and frighten the partridges: when the place is fixed, take five or ſix handfuls of barley or oats, parched in a frying-pan, or elſe ſome wheat, ſtrew ſome grain here and there, and make a pretty long train, ſo as to lead the partridges to the heap; and when you know by their dung that they are come thither, then lay your pit-fall at the place where they have dunged, covering it with ſome leaved branches, or broom, or leaved vine branches, if the ſeaſon allows it, and lay down ſeven or eight handfuls of corn under it, with a long train; the partridges having been regaled there before, will not fail ſoon to get under the cage to eat, and being greedy will jump upon one another, ſo that coming to touch the little ſtick F, G, which keeps the machine extended, it will by that means fall upon them. When the covey is large, ſome often happen to be without the reach of the pit-fall, but he that is dexterous at this ſport will know how to catch them another time.

The two figures, No. 1 and 2, deſcribe the pit-fall two ways; the firſt ſhews how it is extended front-ways, and the other ſide-ways, and they are marked with the ſame letters; the letter E ſhews you, that when the pit-fall is light, and the covey large, that you

you muſt put a ſtone upon the top of the pit-fall, the weight of which prevents a ſingle partridge from letting down the cage or trap, for otherwiſe you may take but one or two: this artifice is well known to thoſe who follow the ſport.

Beſides this pit-fall, for the taking of partridges, there are others of the like nature with which they take ſmall birds; the former was above the earth, but theſe in, and under it, and are excellent for taking blackbirds, thruſhes, fieldfares, and the like birds that feed upon worms. The beſt time for this ſport, is from the beginning of *November* to the end of *March;* the device is cheap, profitable, and pretty common; nevertheleſs, in order to omit nothing that may be uſeful in this work, the following figures will demonſtrate it to you, *viz.*

The figure marked A, is a plain paddle-ſtaff, ſuch as countrymen uſe to carry in their hands as they go about their grounds: with this you are to cut up turfs, with which the pit-fall is to be cloſed, which turf muſt at leaſt be cut two inches larger than the pit: the ſaid paddle may likewiſe ſerve to dig your pits, which ſhould always be made in the ſun, near ſome hedge where birds frequent: they may alſo be made in great woods, near holly-buſhes, for birds in hard weather reſort to ſuch places, in expectation of worms, by picking up and removing the dead leaves that lie on the ground: the holes may be about ſeven inches deep; on the oppoſite ſide let it be about four or five inches long, as deſigned Fig. VI. and from X to O, there may be a diſtance of about ſix inches; then take a ſmall ſtick X, being tapered, or cut ſmall by degrees, prick the ſmall end X, into the ſide marked M, and let the end V, lie upon the ground, ſee Fig. 8.; then have another ſtick marked at S, T, about the bigneſs of a ſwan's quill, and four inches long, which cut flat and ſmooth on one ſide, and cut a notch at the end S, on the other ſide. *See* Plate IX. Fig. 7.

In the next place you muſt have a forked ſtick, marked as Y, and Z, Fig. 9, ſomething bigger than the other ſticks, and about five or ſix inches long, the end Z, being cut like the end of a wedge. The next thing is to make uſe of your turfs, which muſt be four or five inches thick, the bigger ſide to be laid over the largeſt ſide of the pit.

Take the end S, of your little ſtick, and lay the flat ſide on the place M, upon the end of the ſtick which is pricked into the ground; then place the end Z, of your forked ſtick into the notch S, and lay on the turf, making the end of the forked ſtick marked Y, to be juſt under the place of the turf marked K, then move and place the ſmall ſtick which holds the fork, in ſuch manner that by the leaſt bird that comes to tread upon the end of the ſtick, the turf may fall down, and ſo catch the birds in the hole.

That you may induce the birds to come to your pit-falls, get ſome earth-worms, and ſtick four or five of them through the body with ſome long thorns, or ſmall ſticks for that purpoſe, and ſo ſet them in your pits to be ſeen by the birds that come near it; and take care that the birds cannot come to the pits any other way than that marked O; you may plant a little hedge-row of ſhort ſticks about the two ſides of the pit. If it be hard froſty weather, ſtir up ſome freſh earth about the front of the pit, which will much entice the birds to come.

There is another ſort of pit-fall which is not ſo troubleſome as the former, and not ſo many ſticks or devices required; you may uſe it in any hedge, buſh, tree, or the like, and in all weathers. It is to be made and uſed according to the following deſcription:

Take a holly-ſtick about the bigneſs of one's middle finger, and about a foot and a half long, alſo another ſtick of the ſame bigneſs, but about two inches ſhorter, bend them both like a bow, with a good double packthread, between which place a flat ſtick about eighteen inches long, as the letters P, M, K, G, Fig. 10, ſhew; then tie the end of the ſaid ſtick G, to the middle of the leſſer bow, to try if it be right, and with one hand hold the end P, of the flat ſtick, and with the other hand pull the leſſer bow towards you, and if you let it fly back it returns with a good force, it is a ſign it is well done.

Then tie upon your flat ſtick, about three inches from the end of it, at the letter P, a ſmall packthread, about nine inches long, and as big as a good quill, between the ſaid packthread at P, and the letter K; about the letter M tie the thread double, as N, O, then ſpread a ſmall net over two bows, and let the whole be like a folding-ſtool: the way to bend it is thus, lift up the greater of the bows, and bring it over the little ſtick Q, R, then paſs athwart the net the double thread N, O, with the bait faſtened therein at N, and open the end O, put it on the end of the ſtick R, and it is ready ſet.

For the better comprehending it, there are three figures deſcribed, (the letters are all the ſame) one ſhews how to make it, the other how to bend it or ſet it, and the laſt ſhews it ready bent. *See* Plate IX. Fig. 10, 11, and 12.

When you fix it in any place, ſtrew ſome leaves behind it, and alſo upon the bottom of it before, to the end the birds may not unbend it, except in the forepart: you muſt bait it according to the different ſeaſons and natures of thoſe birds you deſign to take; in *May* and *June*, for pies and jays, in gardens and orchards, either two or three cherries, or a piece or two of green pear or apple, may do well: in winter, for black-birds, thruſhes, or the like, two or three worms will do the buſineſs; at other times, and for ſome birds, an ear or two of wheat or barley is very good.

PIZZLE; for the hardneſs or ſwelling of a bull or ox's that is bruiſed by riding. Remedy:

For the ſwelling of a bull or ox's pizzle, you muſt take hollyoak, houſeleek, and a little plantain, and ſtamp them together with freſh butter, and anoint it twice a-day; and if it be ſore, you muſt caſt him, and waſh his ſheath and pizzle with white wine vinegar very well, but, if there be any cancer or holes in the yard, then you muſt put ſome burnt alum to the vinegar, and waſh it very well, and he will mend in thrice dreſſing without fail.

PLAGUE, IN SHEEP. *See* ROT.

PLAGUE, or any diſeaſe in the MELT of SWINE. Cure: Bruiſe long pepper, coriander-ſeed, and ginger, half

half an ounce of each; boil them in milk with an ounce of chamomile flowers, and give it hot at three times at three hours diſtance.

PLANET-STRUCK, or SHREW-RUNNING, as it is called by ſome, is a diſtemper in horſes, being a deprivation of feeling or motion, not ſtirring any of the members, but that they remain in the ſame form as when the beaſt was firſt ſeized with it.

It proceeds ſometimes from choler and phlegm, ſuperabundantly mixed together; ſometimes from melancholy blood, being a cold and dry humour which affects the hinder part of the brain; ſometimes from extreme heat and cold, or raw digeſtion, ſtriking into the veins ſuddenly; or laſtly, from extreme hunger, occaſioned by long faſting.

If it be cold, then it is diſcerned ſome time before by his ſnuffling and rattling in the head, which denotes that cold phlegmatic humours do aſſault the brain; and, if from heat, then it may be perceived by the dryneſs of the tongue, the ſcorching of the breath, clear breathing, and the like; then is the malady in the blood, compoſed of crudities and groſs humours. For the firſt, anoint his temples with the oil of petroleum, and give him an ounce of laſerpitium, in a pint of canary and half a pint of olive-oil, as warm as may be: and, for the latter, having blooded your horſe, give him water and honey, with an ounce of laſerpitium and two ounces of melon-ſeed bruiſed to powder, and let his diet be moderate, eſpecially if his body abound with groſs humours, that by a ſpare diet they may waſte and conſume: though ſometimes indeed by extreme faſting this diſtemper happens, and then by good feeding, though by degrees, is the remedy.

PLANTED [with Farriers] a term uſed of a horſe, who is ſaid to be right planted on his limbs, when he ſtands equally firm on his legs, and not one advanced before the other; his legs ſhould be wider above than below, that is, the diſtance between his feet ſhould be leſs than between his fore-thighs, at that part next to the ſhoulders; the knees ought not to be too cloſe, but the whole leg ſhould deſcend in a ſtraight line, to the very paſtern-joint, and the feet ſhould be turned neither out nor in, the paſtern being placed about two fingers breadth more backwards than the coronet.

As for the hind hand, his jarrets or hams ſhould not be too cloſe, and the inſtep, which is betwixt the hook and the paſtern-joint, ſhould ſtand perpendicular to the ground.

PLANTED-COAT. *See* STARING HAIR.

PLATE-LONGE, is a woven trap, four fathom long, as broad as three fingers, and as thick as one, made uſe of in the manage for raiſing the horſe's legs, and ſometimes for taking him down, in order to facilitate ſeveral operations of the farrier.

PLAT-VEIN IN A HORSE, is a vein on the inſide of each fore-thigh, a little below the elbow, ſo called among common farriers; ſome call it the baſilic vein.

The bleeding of this vein may be ſtopped when cut, by filling the orifice with the wool of rabbit, or hare, and afterwards ſewing up the ſkin in two parts; upon which a little matter will gather together, but by greaſing the wound it will be healed in eight or nine days.

PLOVER, a travelling bird, about the bigneſs of a pigeon; it has yellow, white, and dark red feathers; his bill is black, ſhort, ſharp pointed, and a little crooked at the end. There is alſo another ſort of plover which is ſomething bigger, and from its aſh-colour, called the grey plover, marked with cheſnut-coloured ſpots; his bill is alſo whiter and longer. It is good food, eſpecially for thoſe that are troubled with the falling ſickneſs, and a retention of urine. The fleſh of it has the virtue to purify the blood.

Plovers uſually fly in exceeding great flocks together; that they have been ſeen to the number of thirty thouſand of them in one day. They generally come to us about *September*, and leave us in or about *March;* in cold and froſty weather they go in queſt of their food on ſuch lands as lie near and adjoining to the ſea; in thaws and open ſeaſons they go higher up in the country, ſo that their whole labour is to riſe and fall. They delight much to feed in ploughed lands, eſpecially if ſowed, and having fed, they preſently ſeek out for water to waſh their beaks and feet that are full of dirt. When they ſleep they do not perch upon any thing, but couch or ſit on the ground like ducks or geeſe, far from trees and hedges when the wind does not blow. They ſleep, indeed, only in calm weather, otherwiſe they paſs moſt of the night in running up and down to ſeek for worms as they creep out of the ground, and then they always make a little cry, on purpoſe to keep cloſe together, for at day-break they will all unite into one body, and ſo depart; if in their flight they chance to ſpy any others on the ground, they uſually call them to them, and if they refuſe to go, they make a ſtay, expecting ſome booty. There are many other fowls that accompany them, as lap-wings, teal, and the like.

They are eaſier taken when not intermixt with other fowl, eſpecially in *October*, ſoon after their coming, as being unacquainted with the inſtruments of their deſtruction: they are alſo eaſily taken in the month of *March*, for then they begin to couple. It is not adviſeable to ſet your nets for them in long froſts, and continued cold ſeaſons, but varied with the weather; of all winds, the north-weſt is the worſt to take them; and as you ought not to ſet your nets in ſome winds, ſo you ought exactly to place your nets according to the wind, of which more will be ſaid by and by. All ſea-fowl fly againſt the wind whenever they deſign to reſt on land, and therefore obſerve to fix your nets accordingly, to play with the wind.

There are many little neceſſary things to be uſed in the taking of plovers: you muſt have two poles or ſtaves, marked 1 and 2, in plate X, about as thick as your arm, and of a different length, one of which muſt be nine feet three inches long, and the other nine feet; let both of them be a little notched at the ſmalleſt end.

Then you muſt have two pieces of ſome pipe-ſtave, as marked 3, a foot long, and three inches broad, and pointed at one end; in the next place you muſt have a couple

couple of ſtaves about the bigneſs of one's thumb, ten or twelve inches long, and pointed at one end, as that marked 4; get three other pieces of wood, marked W-5, each two feet in length, and about the bigneſs of a pitch fork, ſharpened at the end: then you muſt provide yourſelf with a ſmall hatchet, marked 6, the ſharp ſide not above three inches deep, with a ſtrong head to beat in the ſtaves: you muſt have a bill, or large knife, marked 7; alſo a ſtick in the faſhion of a billiard-ſtick, as repreſented by W-8, which muſt be two feet long, from the letter A, to B, ending in a point at A; the other end B, C, muſt be a foot long, bending, and it muſt be cut in three angles at the letter C.

In the ſecond cut is deſcribed a pipe or whiſtle, No. 1. wherewith you may call the plovers; it may be made of the thigh-bone of a goat, or a large ſheep, and cut off at both ends about three inches long; fill it at the end H, with wax, at the opening E, then make the hole F, plain under the bone, that the wind may come; next make a hole at the middle F, juſt above big enough to receive a ſmall gooſe quill, and another a pretty deal bigger, towards the end G, to give in the clearer ſound; and likewiſe pierce a ſmall hole at H, to receive a packthread, that you may hereby hang it about your neck.

Then provide a ſmall pannier, or baſket, as in the figure W-2, ſomewhat in the form of an egg, which muſt be big enough to hold three or four live lapwings with a hole in the top to put them in, with ſomething to ſhut it, and a cord to carry it.

Be provided with three ſmall reels, as repreſented by the third figure, which ſerve to wind your lines upon: they conſiſt of two pieces of wood, I, K, L, M, half an inch broad, and ſix inches long, which muſt be bored nearer the ends, in order to fit the two ſtaves I, L, K, M, which muſt be ſmaller than one's finger: you muſt pierce the two flat pieces of wood in the middle P, O, into which put two other pieces which may eaſily turn, as you may ſee in plate X, No. 3.

You muſt have a commodious ſack, or wallet to carry your things in, as the birds you have taken and killed, the packthreads, and other neceſſary utenſils; it is made according to the deſcription in plate X, No. 10, of three pieces of ſquare wood, B, F, C, D, A, E, two feet long, and an inch and half thick; they muſt have three ſeveral holes bored an inch big; take three or four thick ſtaves, three feet long, and bent like a bow, which thruſt into the holes in the middle marked I, half in, then fix one of the ends in the hole K, and the other in the hole L, which faſten with ſmall wooden wedges; you muſt paſs the other two above and below in the ſame manner, and place three ſticks more, T, H, V, eighteen inches long, between the two pieces B, F, and A, L, which ſhould enter into the holes made on purpoſe to keep the reſt in order: you muſt tie two girths, leather ſtraps, or cords to the ſtaff L, I, in the middle, and the other two ends ſhould be furniſhed with the ſhoe buckles F, and D; or elſe tie a cord, two feet long, to the letter D, by one end, and the other end faſten at C; and when all this is done, cover it with ſome coarſe linen cloth, or canvas, as you ſee is repreſented in the cut, and leave a piece of the cloth above, as A, B, C, which muſt be ſewed about a wooden bow: it will ſerve for a lid or cover.

Some make uſe of another ſort of pipe, repreſented in the next cut, 4, being nothing but a piece of wood, leſſer than one's little finger, and three inches long, cleft at the end, unto the middle T, wherein fix a bay-leaf, to imitate the cry of lapwings.

Beſides this, you muſt have two rods as in the ſecond figure, each five feet and an half long, and ſtraight, light, and ſlender, having at the bigger end B, a peg faſtened, three or four inches long, with a packthread, and pretty cloſe to the rod; at the middle C, that is, nearer the great end, tie a couple of packthreads, each two feet long, with a peg at each end D, and E, of the ſame ſize with the former at B; at the ſmall end of the rod A, faſten another ſlender packthread, with a double at the end, to clap about the body of a lapwing, and the other end, which is ſingle, muſt be a good deal longer, to faſten the tail of the bird.

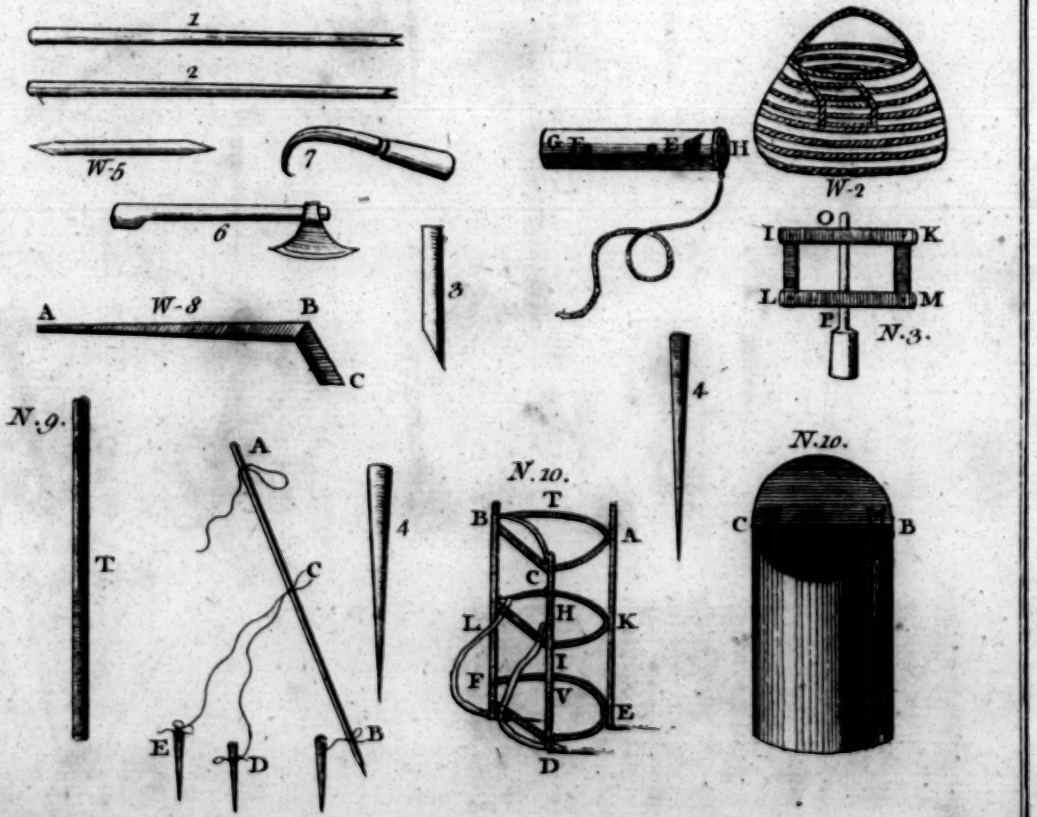
Take an holm-ſtick, about four or five feet long, indifferent ſtrong, at the great end of which faſten two pegs, B, C, at each ſide, about the bigneſs of one's little finger, and ſix inches long; about a foot and a half from thence faſten two packthreads, each two feet and a half long, with a peg at each end F, and G, about the ſame ſize with the former. Theſe are the main implements to be uſed; now we come to treat of their uſe.

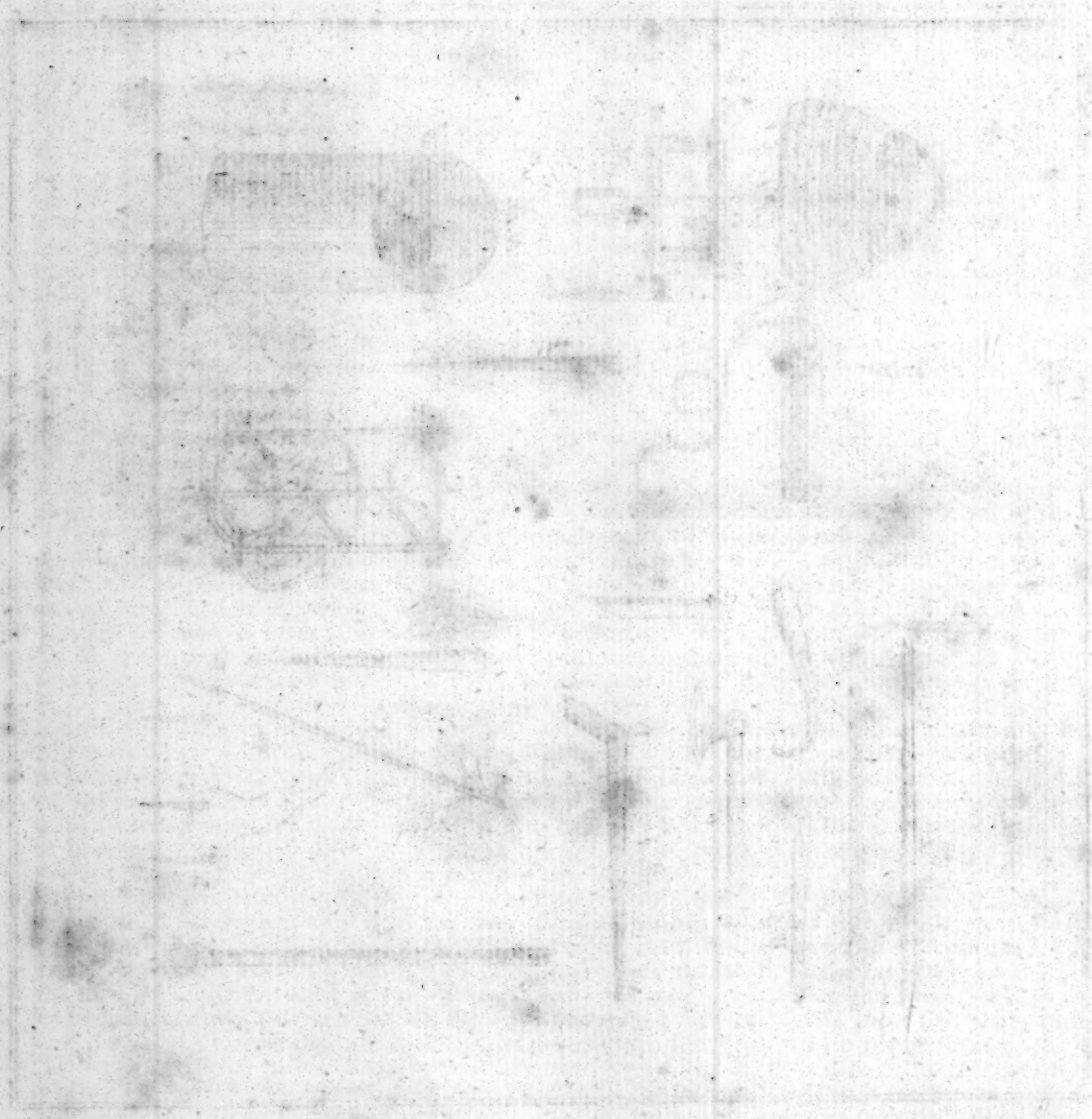
After having provided yourſelf, beſides theſe implements, with a net or two, which are known by the name of leap-nets, whoſe meſhes are lozenge wiſe, and two inches broad, and whoſe length ſhould be about two fathoms, and eighteen inches deep; the beſt place to pitch them for plovers and ſuch like fowl, is in large common fields of green corn, where there are neither trees or hedges, at leaſt within three or four hundred paces of the place where you deſign to go to work: if there be any water in the place, endeavour to pitch near it; for plovers, as before hinted, delight to waſh their beaks and feet after they have dirted themſelves with turning the earth up and down for ſeeds and worms: you muſt take care that the plat where you pitch be a little lower than your lodge, or at leaſt equal with it, for it muſt not be higher. *See* Plate XI. Fig. 6.

Now ſuppoſe the plate repreſents the form of the meadow or field, and that the place where you deſign to pitch, reaches from A, to B, that the diſtance between B, and E, be the ſpace between the plat-form and your lodge, and that the wind blows ſouth; you muſt have a packthread about fourteen or fifteen feet long, and faſten it to a couple of pegs, A, B; the pricked line A, B, is done on purpoſe to repreſent this packthread, which faſten in the ground, to line out the place for your net; then take the billiard ſtick, A 8, B, C, deſigned in one of the preceding figures, and beat the earth with the triangular end, as if you would cut it, and ſo paſs along the whole length of the packthread, which is about twelve or fourteen fathom, the exact length of the net: when your border is made, then take away the packthread, and take the ſhorter of the

Plate X.

Plovers





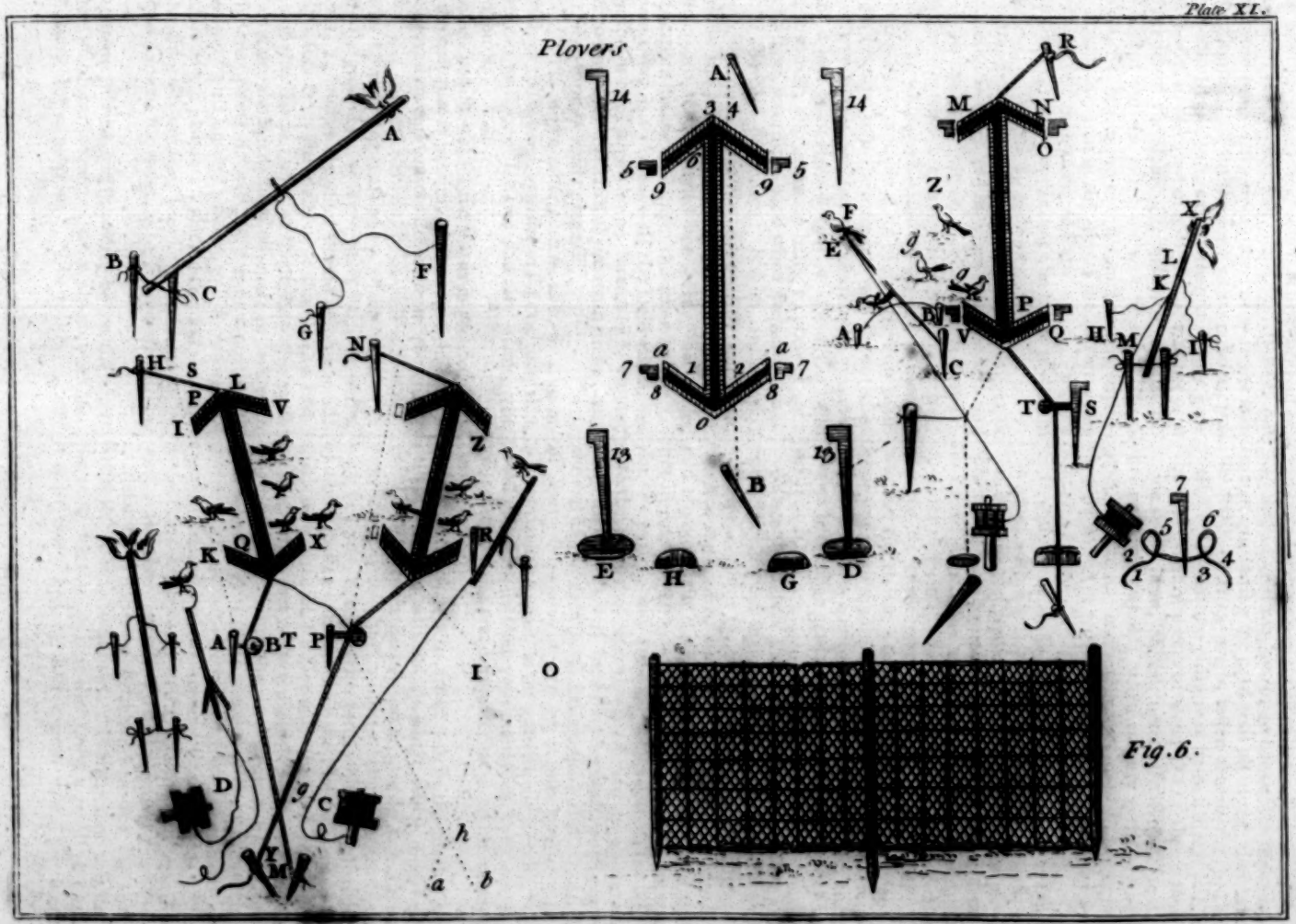

Plovers
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Fig. 6.

the two ſticks marked 2, and drawn in the figures before, repreſenting the utenſils; place the ſmall end at the bottom of the border 1, and the bigger at number 8, not directly ſtraight, but bending at leaſt two feet inwards, as you may ſee by the pricked line traverſing from the hind cypher 1, to 7, which is ſtraight, and not the line 8 O; being thus laid, hold it faſt with one hand, and with one finger of the other, or with the handle of your knife, trace out the form of its poſition, that it may reſt imprinted on the earth; then with your great knife marked 7, in the preceding figure, cut along your trace or border of your ſaid ſtick, and with your hatchet marked 6, cut out the earth between the two traces or lines, *a* 1, 8 *o*, beginning at the 1, and ending with 8, in ſuch a manner, that at the end 1, the earth may be taken out but one inch over, and at the end 8, four or five inches large, that your ſtick may be hid as it were in a gutter.

This being done, carry the other ſtick, the longer of the two, unto the other end of your long border, and plant it in the ſelf-ſame faſhion at 3, 9, that it may be, as it were, in a gutter, like the other; then take your ſtick marked 3, which drive into the ground at the end of your two gutters, at 8 and 9, to hinder the two main ſticks from beating into the ground, with the force of the net; drive alſo your two ſticks into the ground, about half a foot from your border, at *j* add 3, a little inclining inwards; the intention being to prevent your main ſticks from returning back when the net is ſtraitened, until the cord be pulled; beſides, ſhould you place them outwards upon the lines 9, 6, and 8, 2, it would be impoſſible to make your net play, for then, the more you ſtrained the cord, the cloſer would your main ſticks come under the other ſticks.

The next thing is to remove all the looſe earth, except a handful or two, which lay on the two ends 5 and 7, the better to raiſe the other ends of the main ſticks; and then your plat-form is ready prepared.

Now if you make two other gutters, as 2, 8, 4, 9, on the other ſide of the border, oppoſite to the two firſt, then your platform will ſerve for two contrary winds, viz. north and ſouth.

It remains, you ſhould fix the ſtakes in the neceſſary places; the firſt that is behind, marked 14, which muſt be pitched ſeven or eight paces diſtant from the end of the border 3, 4, and on one ſide about half a foot off; the ſecond is a ſtrong peg marked 13, which ought to be driven into the ground ſix or ſeven paces from the end of the border 1, 2; and as the other ſhould be on one ſide about half a foot from the palet 9, ſo ſhould this from that at 8, and the laſt H, muſt be thruſt into the earth behind the lodge, about a fathom off, more or leſs, over againſt the two palets 8, 9; but if it be a north-eaſt wind, you muſt pull up theſe ſtakes, and turn them to the other ſide of the plat-form, placing them at the ſame diſtances as before-mentioned; and that at H muſt alſo be carried to G, and the lodge E to F, and all will be right.

If you intend to take any plovers, be on the place where your plat-form is ready made, with all your implements, early in the morning. The following cut repreſents a ſimple plat-form for a weſt wind. *See* Plate XI. Fig. 7.

Place the main ſtick in the gutters, and take your net on your left ſhoulder, or arm, and go towards the lodge, which is about fifteen or ſixteen fathoms from the plat-form, and there place the buckle which is at the end of the cord of your net, and ſo go backwards towards your plat-form, letting the cord trail all along; and being at the ſtake, or ſtrong peg S, faſten thereto the cord of the pully T, ſo that the pully may be in a direct line with the two palets or pieces of wood Q O; then when you come to the form, let your net itſelf fall by degrees, and ſtill retire backwards; when you are at the peg behind, which is at R, ſtrain the cord until it be right and ſtraight and then fix it to the ſaid peg, that it may not ſlip back.

It will not be amiſs to deſcribe to you the manner of the knot, with which you ſhould faſten your cords upon this occaſion; ſuppoſe that the peg 7 be the piece to which you have a mind to faſten your cord 2, 4, take it in one of your hands at 1, and bring over the thread 2 in order to form the buckle or knot 5, which paſs over the peg 7: then make another bow or buckle, at 6, wherein the thread 4 is paſſed under, and ſo clap over your peg upon the top of the other bow; then ſtrain the two ends 2 and 4, and your knot will be complete, and will ſooner break than get looſe: you muſt be very exact and ready at it.

When the ends of the cords of the net are thus faſtened, lift up your main ſtick P, Q, and place the great end in the gutter Q, and drawing the cord of your net towards the border, force it into the notch in the ſmall end of your main ſtick, and let ſomebody hold it there; but in caſe you have no help, lodge it in the gutter under the peg P, and drive the ſharp end of the billiard into the ground to ſtay there, till you go to the other main ſtick N, O, and there fix your cord in the notch at the end M; it muſt be ſo ſtraightened, that a great deal of ſtrength may be uſed to get it into the notch: then place your main ſtick in the gutter under the peg N, remove your billiard from your main ſtick V, Q, and force your net into the plat-form, ſo that it be hid under the cord.

The next thing is to direct you in the placing your call-plovers and artificial lap-wings, which muſt be diſpoſed as you ſee in the cyphers o o o: in caſe the wind be not directly eaſt, but inclined a little to the ſouth, then your firſt pelt, or counterfeit bird, which is only the ſkin of a bird ſtuffed with chaff, or the like ſtuff, marked Z, ſhall be placed half a foot from the border, and about eight or nine feet from the end V; the reſt you may range in ſuch order as they are deſigned by the figure, at about two or three feet diſtance from each other: whereas, in caſe the wind be north-eaſt, place your birds a good deal further from the end V, that is to ſay, about ſix feet further, becauſe wild fowl always fly againſt the wind; and then, as they uſually paſs over the ſtales or artificial birds that are between them and the hinder ſtake R, it may ſo fall out, that they may paſs under the cord, for that will be ſhorter by a third part when it is let looſe, and by half a part when the wind is

ſtrong, which you muſt diligently obſerve; but then when there is but little wind ſtirring, you may place two-thirds of your birds behind the net, and if the wind be ſtrong one-third part is enough, the reſt ſhould be before, becauſe plovers will come where your birds are.

But as for your lap-wings, let them not be mixed with your plovers, but place them juſt by your gutter, as the ſmall letters *g*, *g*, import.

The next thing to be diſpoſed of is your live birds; if you intend to uſe two, drive one before and the other behind; if you have only one, place it behind in this manner; force your little picked ſtaff C into the ground, which is tied to the bigger end of the rod, and then holding up the little end F, ſee if it ſtands right with the lodge, and if ſo, hold it a foot high, while you ſtick the two pegs A, B, into the earth, then tie a live lap-wing to it, with a loop of the packthread about its leg, which packthread ſhould be pretty long, to the end the lapwing may not hurt itſelf; then put the tail about the end of the rod, and faſten it with another packthread, and ſo taking one of the reels, faſten the end of the thread, which is above a quarter part of the length of your rod, to the place marked E, and the reel to the lodge; if you place a couple of lapwings, you muſt place the other in the ſame manner before your plat-form.

Your holm-ſtick muſt be placed about three or four fathoms from the border, and about ſix feet above the laſt pelts or artificial birds: to ſet it in right order, do thus, drive into the ground the two pegs marked at the great end M, in ſuch a manner, that the holm-ſtick may move like the axle-tree of a cart between two wheels: take the little end X, and lift your rod almoſt ſtraight up, that it may be right to the lodge, and then faſten your two pegs H, I, in the ground, to which the ends of the packthreads are tied; then faſten the end of your line to one of the reels, at the middle L of the rod, and carry the other end to your lodge; the holm-ſtick muſt be tied at the end X of the rod, and covered with ſome boughs, ſtraw, or the like, that the birds may not be frightened at the ſight thereof.

This holm-ſtick is nothing but the two wings of a kite or buzzard, which are tied with two or three hawk's bells, at the end of the rod, for the purpoſe which ſhall be ſhewed hereafter.

The lodge is to be made after this manner: take five or ſix boughs, about three feet high, and ſtick them in the ground like a hedge; it muſt be open at top, that you may hear and ſee the birds that paſs near you; the perſon muſt be neither clad in white, nor any bright coloured cloaths: the lodge may be eaſily comprehended without giving any deſcription of it; you may ſee it in plate XI, which repreſents two nets managed by a ſingle perſon at the ſame time, from one and the ſame lodge; the ſeat muſt be of turf, about a foot ſquare, and three or four inches thick, which put beneath the cord, in the place marked C, where your cords croſs each other, and where one may touch the hold-faſts *f*, *g*, to ſtrain the nets; you muſt lay a good handful of ſtraw under the cord, upon the turf, to prevent dirting the cord, as well as ſpoiling the turf, and you had need of a good arm-full in your lodge, to keep you warm and dry, as occaſion requires: you muſt likewiſe cut two little holes in the ground, *d*, *e*, to reſt your feet when you ſtrain your cords. The ſame thing muſt be well obſerved if you uſe but one net, but he that will undertake to manage two nets, had need to ſee firſt the manner of it; at leaſt obſerve the directions following:

Take a long cord, repreſented by the pricked line, K, I, which faſten at one end to the peg M, about two or three feet from the ſide of the peg Y; the other end faſten to the peg H, ſo that the place K of the packthread may be between five and ſix fathoms diſtant from the end of the gutter O; when the ſhorter of your two main ſticks is fixed, one end at K, and the other at Q, carry the bigger of them ten or twelve fathoms diſtant, the one end being ſet at I, within half a foot of the packthread, and the other towards L; let them be ſtooped down, and then fix another packthread, repreſented by the pointed line S, T, which muſt be ſtrained hard, after which, with your billiard ſtick, make your border or plat-form, Q, R, P, then cut out your gutters, and place your pegs and ſticks as in the former net.

You may make this form ſerve for two winds if you make the gutters V, X, Z, R, juſt oppoſite to the others, and then place your main ſticks in them; when you would change your wind, you muſt alſo turn about your cords and tranſplant your lodges; as for example, the foregoing figure repreſents two nets, which are ſet for a weſterly wind; ſuppoſe the wind ſhould chop about, and turn eaſterly, you muſt then firſt of all put the end of the cord M to the letter C, the ſtrong peg A to the little *p*, and the ſtake H, to the little *m*, the main ſtick K to the letter X, the other I to the letter V, and your net will then be ſet to the eaſt wind. You may likewiſe tranſpoſe the other net, by turning the cord Y to the little *a*, the ſtrong peg to the little *o*, and that ſtake behind the letter N: you muſt alſo turn your main ſticks about, and make a low ſeat at the little letter *b*, and dreſs up your lodge there; the two pointed lines, *a*, *b*, *i*, *n*, and *b*, *h*, *p*, *m*, do finally demonſtrate how the nets ſhould be placed when the wind is turning about; your birds, both alive and dead, muſt be ſo altered as you ſee, and you muſt ſet two or three counterfeit birds before the firſt border with a lapwing or call-bird, and another behind the plat-form: the reſt of the artificial birds may be ſet before the border P, Q, and the holm-rod behind the laſt net.

In the next place, we proceed to give ſome inſtructions when and how to call, and alſo when and how to draw the nets for plovers, and the like birds. Your implements being all diſpoſed in good order, as already directed, betake yourſelf to your lodge, having your pipe hanging at your neck; and being every way watchful, when you eſpy any game on the wing, give them a call, and cauſe your call-birds to fly a turn or two as often as occaſion may offer; for the game perceiving the lapwings to ſtir, and fly from place to place, and your other birds ſtand as it were feeding, they will be decoyed thither in expectation of ſome food; when they approach, be ſure you do not make your birds ſtir at all,

for

for in that caſe they would ſoon perceive, by the force of the motion, that they were tied, and they would fly away for fear of being ſurprized themſelves; neither muſt you with your pipe give them ſuch loud calls as if at a remote diſtance, but leſſen your notes by degrees.

It is very difficult exactly to imitate the notes, without good obſervation and practice; but as near as you can, call in the ſame notes as you hear them, as they paſs by you; and be ſure not to let fly your net, though there were many of them, and that they were juſt at the net, unleſs they come flying againſt the wind: when you perceive they begin to deſcend, and that they come within eighteen or twenty feet of the platform, let go your pipe, and lay both hands on your cord, to let fly with all the force you can, juſt as you perceive the firſt of the flock between the two ſtakes K, I; if they are about, or above eight feet high from the ground, let them paſs on, for they will wheel about and take another turn, nay, they will often paſs by you nine or ten times before you find them right for your purpoſe; you will find that, generally, they will pitch a good way from your net; if you perceive them ſo inclined, make a little noiſe to prevent them; if, nevertheleſs, they take ground, then get your aſſiſtants, (for it is proper there be two at the ſport) to ſteal out at the backſide of your lodge, and fetch a great compaſs behind the plovers; and if you had, for that purpoſe, your artificial ſtalking-horſe, or cow, it would be of great uſe; but for want thereof, let him go on all fours, or at leaſt ſtooping with his head down, by which means, he may by degrees drive them from ſide to ſide, within ten or twelve feet of the border, at which time let him throw up his hat, and give a great ſhout, upon which they will take wing to fly over your nets, at which inſtant of time, draw in your cords very briſkly, and take up all thoſe that are under the net.

When you have gathered up all, clear the place of all the looſe feathers that lie on the ground, and then ſet your net again in its former poſition, in order to catch more.

If you have two nets planted, when a flock comes, do not preſently draw, but let your aſſiſtant fetch a compaſs, and raiſe them, by which means you may be aſſured of them.

When you ſee a great flock coming, your aſſiſtant muſt hold the cord of your holm-rod, that is, the kite's wings, and draw it juſt when you direct him, that is to ſay, when the firſt birds of the flock fly low, and are within about ſix feet of the form; for as ſoon as ever they perceive the holm rod aloft, the laſt of the flock will firſt paſs on, and all of them come within a foot of the ground, ſo that you may take the greateſt part of them, were they ten or fifteen dozen: you muſt be ſure not to ſtir the holm-rod till the birds are within ſeven or eight feet of the ground.

When ſome guinets get into your nets, (which are birds not much bigger than larks) do not buſy yourſelf with killing them, as you do the plovers, one after another, but give them hard blows with your hat, as you would do flies, for they will very readily ſlip through a net that has large meſhes; you will ſometimes get above five hundred of them at once in your nets, and yet perhaps not take above thirty.

PLUMAGE. The feathers of a bird, or a bunch of feathers.

PLURA in Horses. An inflammation of the plura, lungs, diaphragm, *&c.* are all attended with a violent fever, have moſt of their ſymptoms alike, and the general method of cure is the ſame in all: the principal peculiarities are diſtinguiſhed as follows:

The inflammation in the lungs is called a peripneumonia; an inflammation in the pleura is called a pleuriſy; an inflammation of the diaphragm is called paraphrenitis, *&c.*

The ſigns of a pleuriſy are beſides the uſual ſigns of a fever, which at the firſt are moderate, but ſometimes very violent, with great difficulty of breathing; he ſhifts about frequently, is very reſtleſs; his flanks work and heave exceſſively; his belly, for the moſt part, ſeems to be drawn up: at the firſt onſet of the diſeaſe, he attempts frequently to lie down, but ſuddenly ſtarts up, turning his head to one ſide as if he was griped; but in the gripes the heat is ſucceeded by cold, and this by heat again alternately: when he lays down he rolls, ſtretches out his legs, *&c.* as may be ſeen in the article Cholic; whereas in the pleuriſy, the heat is conſtant both in the body, ears, and feet, with a hard and quick pulſe; and what is yet more particular, when in a beginning pleuriſy he attempts to lay down, he riſes up, and runs back as far as he can, and there ſtops and pants until he is eaſier, or falls down.

When the inflammation is in the lungs, the ſymptoms are in general the ſame as in the pleuriſy, except that in the beginning he is not ſo reſtleſs; and during the whole diſeaſe, he never attempts to lie down; he hath a ſhort cough; and his mouth, inſtead of being parched as in a pleuriſy, hath a ropy ſlime conſtantly in it, which dribbles away plentifully; and he hath a running at his noſe of a reddiſh yellow colour, which by reaſon of the great heat, becomes very viſcid, his flanks ſeem eaſy, except after ſtirring or drinking a little, his belly ſeems rather diſtended, and his ears and feet generally cold.

If the diaphragm is more immediately the ſeat of the diſeaſe, the chief difference from the ſigns of a pleuriſy is, that in this caſe the jaws are ſo ſet at times, that nothing can be got into the mouth.

If the bowels are the ſeat of the inflammation, and the violence of the diſeaſe threaten a mortification, this will be ſuſpected by the hard, black excrements, which are ejected in ſmall pieces, and frequent efforts with ſeeming great pain.

In the method of cure, the difference is leſs than the ſymptoms which are the diſtinguiſhing characteriſtics.

Early as poſſible bleed: if it is a ſtrong, full-fleſhed horſe, take away ſix pints of blood; and if the violence of the diſeaſe ſeems not leſſened thereby, take away three or four pounds more the next day; and if need be, take away two pounds more the third day. On ſpeedy and free bleeding in the beginning, the chief dependence is had. A weak, old horſe, will require much diſcretion in theſe caſes, his ſtrength not admitting ſo free bleeding.

The diet muſt be cooling, relaxing, and ſolutive, and the treatment in general the ſame as in the firſt five ſections under the article Fevers, only after each doſe of the ſaline powder, or with it, as your diſcretion may lead, have a pint of pectoral drink given him; and if the cough is troubleſome, a hornful of the ſame may be given every two hours, beſides what is given with the powder.

Pectoral Drink.

Boil four ounces of *French* barley in three quarts of water, until the barley is ſoft, then add thereto of ſliced figs and bruiſed raiſins, each four ounces; liquorice-root, bruiſed, one ounce; boil them a little while, ſo that two quarts of liquor may be ſtrained off.

In obſtinate caſes that have not given way to the above treatment, a ſtrong decoction of the rattle-ſnake root hath been ſingularly uſeful: it powerfully alters the inflammatory ſtate of the blood; in diſeaſes of the breaſt and lungs, it promotes expectoration; it promotes both perſpiration and urine; and it looſens the belly.

Decoction of Rattle-ſnake Root.

Take rattle-ſnake root, four ounces, boil it in ſix pints of water to four; then pour off the liquor, and give it all in twenty-four hours.

To the emolient clyſter, two ounces of nitre (or of GLAUBER'S ſalt, if the horſe is very coſtive) may be added in theſe inflammatory complaints.

If, by the above, he begins to run at the noſe, you may expect a recovery very ſoon: and as the heat and ſigns of pain decreaſe, the medicines may be given more ſparingly; and when he begins to eat, the cooling medicines may be omitted, but continue the pectoral drink.

As ſoon as you can lead him out and exerciſe him, take care that his diet is opening, light, and nouriſhing: at leaſt, for a fortnight after he begins to recover he may have three or four ſmall feeds of oats, beſides a maſh or two of bran, or of barley ſteeped in hot water until it is ſoft.

There is alſo a falſe baſtard pleuriſy; it has been called a cheſt founder. It conſiſts of an inflammation of the muſcles that are ſeated betwixt the ribs, and is known by a ſtiffneſs of the body, ſhoulders, and fore-legs, uncommon heaving of the flanks, a ſhrinking when touched there; and ſometimes a ſtaring coat, and a dry, ſhort cough. It ſhould be remembered, that when horſes move with difficulty in their fore-parts, from ſtiffneſs or from pain, they are generally ſaid to be foundered in their bodies; but for the moſt part, the cauſe is in the hoofs, or in the feet. This ſhould be attended to carefully, and diſtinguiſhed from the baſtard pleuriſy.

In order to the cure, bleed, and rub the ſides over the ribs, twice a-day, with a mixture of two parts olive-oil, and one part volatile ſpirit of ſal ammoniac: give gentle purges at proper diſtances: and let the diet be barley, boiled ſoft, or bran given either dry or in maſhes. This diſorder ſometimes terminates with an abſceſs on the ſhoulder, or on the inſide of the fore-legs.

POCKET-HAYES. Are certain ſhort nets to take pheaſants alive, without hurting them; whoſe haunts being found out, place yourſelf for the better view, on ſome tree, without noiſe; and when you find they are there, ſtrew a little barley, oats, or wheat, for a train, and in ſome likely place lay five or ſix handfuls together, to which they will come, as being drawn thither by the train.

Then plant the pocket-net deſcribed under the Articles, CALLS, *Natural* and *Artificial*, Plate III. and ſo you may lay two or three of them in other places, and plant croſs their walks.

Theſe pocket-hayes are about a yard long, and ſixteen inches deep: you may alſo in other paths, place two or three of your collars of horſe-hair, in fit places, athwart their paths, to take them by the legs; and be ſure to watch very narrowly: the firſt that is taken will ſtruggle very hard to get off, and will alſo make a great cry, which may occaſion the frightening away of the reſt that are near at hand, ſo that nimbleneſs is requiſite; beſides, if they be taken by the ſtrings, they hazard the breaking the lines and their own legs.

POGE. A cold in a horſe's head.

POINSON, is a little point, or piece of ſharp-pointed iron, fixed in a wooden handle, which the cavalier holds in his right-hand, when he means to prick a leaping-horſe in the croup, or beyond the end of the ſaddle, in order to make him yerk out behind.

POINTS, or toes of a bow of a ſaddle. *See* Bows.

POINT. A horſe is ſaid to make a point, when in working upon volts he does not obſerve the ground regularly, but putting a little out of his ordinary ground, makes a ſort of angle, or point, by his circular tread.

POINTERS. Their great utility and excellence in ſhooting partridges, moor, or heath-game, which makes them worthy of our regard, are well known. There is ſo great a variety of pointers, of different make and ſize, and ſome good of each kind, that it is no wonder men ſhould differ in their opinions concerning them. The pointers moſt approved are not ſmall, nor very large; but ſuch as well made, light and ſtrong, and will naturally ſtand. A ſmall pointer, though ever ſo good in his kind, can be but of little ſervice in hunting, particularly through a ſtrong piece of turnips, broom, or heath, and the feet of a large heavy dog, will ſoon be tired by his own weight. It is proper for a young ſportſman to procure a dog that is well broken, and to inquire the method and words he has been uſed to by his former maſter, in breaking and hunting with him; otherwiſe the dog will have a new leſſon to learn. But if a young ſportſman is deſirous of breaking his own dogs, the following is the method adviſed.

Having made choice of a whelp of a known good breed, begin when about three or four months old to teach him to couch at a piece of bread, cauſing him to lie, whilſt you walk round him at ſome diſtance, and come nearer to him by degrees: when he has lain as long as you think proper, reward him with the piece of bread, and ſpeak kindly to him. Teach him to fetch

and

and carry, to bring a glove or a bird of any ſort after you; always obſerving to cheer him with kind expreſſions when he does well, and check or ſpeak roughly to him when he does not obey. Uſe him to obey by whiſtle and ſigns with your hand as much as poſſible; for it is a bad way to make more hallooing in the field than is neceſſary. When you chaſtiſe him, it ſhould be with a whip, ſo as to make him remember it, uſing a rough voice at the ſame time; but the chaſtiſement ſhould not be too ſevere, and the words you uſe to him as few as poſſible. When he is about five months old, uſe him frequently to be tied up, let him have his chain off for half an hour or an hour morning and evening. It is beſt to give him his leſſons in a morning before you feed him, with your own hand, that it may ſeem as a reward, the more to endear you to him; but do not overfeed him. Take him out whenever you walk, ſometimes leading him in a ſtring; ſuffer him to go a little before you, and ſometimes behind; but when looſe, never ſuffer him to go far from you, unleſs you hunt with him; and oblige him to come to you at the word back, or here; train him thus by continual leſſons, till his attention is always on you to know what he is to do. It will not be amiſs frequently to fire off a little powder, and to make him lie down whilſt you load again, which will not only teach him to ſtand fire, but will alſo make him acquainted with his buſineſs in the field; for the neglect of which he would frequently ſpring birds whilſt you are loading. At ſix, ſeven, or eight months old, (for all dogs will not begin to hunt alike early) take him into the field the latter end of *Auguſt;* and if you have an old ſtaunch pointer, take him with you at firſt to teach the other to hunt off. When your old dog makes a point, if the young one be not near, bring him up by degrees till he ſpring the birds, and let him enjoy the ſcent, which will encourage him to hunt. When you find he knows birds, and will hunt, it is beſt to take him out alone: obſerve which way the wind lies, and if you can conveniently, enter on that ſide of the piece you intend to hunt in, which is oppoſite the wind, and do not ſuffer your dog to go in before you, caſt him off to the right or left, croſs before the wind, walking ſlowly the ſame way till he be got to the ſide of the piece, then whiſtle or give the word back, at the ſame time walking the contrary way, pointing with your hand the way you would have him go; bring him back till he comes to the other hedge or ſide of the field; advancing forward ten or twelve yards, every time he croſſes you; repeat this till you have regularly hunted through the whole field; by which means you will certainly find birds, if there be any. When he points, walk up to him, and go forward ſlowly towards the birds: when you think you are within a few yards of them, if they lie, and your dog be ſteady, walk in a circle round them, coming nearer by degrees till you ſpring the birds. If your dog runs after them, (as moſt young dogs will do) check him with rough words; but if he continues doing ſo, you muſt chaſtiſe him ſmartly with your whip, till you break him of that fault. It is very common with young dogs that will ſtand at firſt, afterwards to break in and ſpring the birds, which you muſt never indulge him in. Put a few ſmall ſtones in your pocket, and when he ſtands, endeavour to head him, that is, to get before him, holding up your hand with a ſtone ready to throw at him, to deter him from ſpringing the birds, whilſt you can walk round him; or if it be convenient, take a perſon with you on horſeback, and when your dog commits a fault, or does not obey your call or whiſtle, let him ride after and whip him; and at the ſame time, if you whiſtle or call, he will naturally come to you for protection. Thus he will learn to come to you, as he always ſhould do, when he has committed a fault; for if he be puniſhed ſeverely by yourſelf, you would find he would not come near you when he knew he had done wrong, which would render it difficult to break him; but if this method be obſerved, by harſh words and moderate correction, he will ſoon get the better of the foible, and become ſtaunch. When he commits a fault, command your temper in correcting him, and let it be without paſſion, and let no fault provoke you to kick or ſtrike ſo as to hurt him.

The breed of pointers which has been mixed with *Engliſh* ſpaniels, ſuch as are for ſetting-dogs, (in order to have ſuch as will run faſt and hunt briſkly) are according to the degrees of ſpaniel in them, difficult to be made ſtaunch, and many of them never will ſtand in company. The method already given is the moſt likely to ſucceed with theſe, but I would by no means adviſe a young ſportſman to meddle with ſuch. If you find your dog refractory, and cannot eaſily make him ſtand, yet find ſome qualities that induce you to take a good deal of trouble with him, (ſuch as a very extraordinary ſagacity in ſcent, and that of a ſtrong bold hunter) when he knows birds well, you may hunt him with a leather ſtrap three or four yards long, faſtened to his collar, which by his treading on it frequently will ſhorten his ſpeed, and render him the eaſier to be ſtopped. Some will hunt him with a collar lined with another, through which ſeveral clout-headed nails are put, the points inward, and a line faſtened thereto: which will not only check his running too faſt, but when he ſtops, if the line be long enough for you to get ſo near as to ſet your foot on, or take hold of it, if he bolts forward, he will be pricked ſo as to make him remember it, and will endeavour to avoid the repetition of the puniſhment. You muſt be very ſtrict with him, and not hunt him in company with any other dog till he be quite ſtaunch: it often coſts a great deal of trouble to make him ſo; but ſuch dogs, when broken, do often turn out the beſt.

Some are of opinion, that the way to make pointers ſtand well in company, is, when they are young, to take them out conſtantly with your old ſtaunch dogs, and they will learn by degrees to ſtand both with and without company. But unleſs he is of a breed known to ſtand naturally, you will find more difficulty in breaking a vicious dog in company than by himſelf.

It is alſo common, not to begin to enter pointers till near a year old; becauſe uſing them very young ſhortens their ſpeed. Suppoſe there is truth in this maxim, and your dog ſhould not hunt altogether ſo faſt, a ſufficient amends will be made for his want of ſwiftneſs, by hunting more carefully, nor will he run upon birds, or paſs them unnoticed, as dogs which run very faſt are apt to do. *For more, ſee* SETTING-DOGS.

POISON. A general remedy for.

Take the inner rind of elder, and longwort, each a handful; of long pepper and liquorice, each an ounce; rue, a ſmall handful; anniſeed, cumminſeeds, and turmeric finely beaten, each half an ounce; a root of garlic bruiſed; madder, two ounces: boil theſe well bruiſed in two quarts of ale, beat in four new laid eggs, and an ounce of treacle; when the liquid part is well ſtrained, give half a pint of the liquor, as hot as maybe, in a morning faſting; do it four times ſucceſſively. Or,

Take a pint of ſtrong vinegar, half a pint of ſweet butter or oil, and of *London* treacle two ſpoonfuls; ſet it on the fire, mix and give it pretty warm.

POISON, IN SHEEP. Cure,

Look under the tongue, if you perceive the ſheep to reel or ſtagger, and you will find a bliſter: cut it, and let out the water; then rub it and the mouth with urine wherein bole ammoniac and ſage have been boiled, and give to drink half a pint of olive oil in a pint of new milk, but keep the ſheep warm two or three days.

POISON IN SWINE. Cure,

Get mayweed a handful, ground ginger an ounce, anniſeeds and fennelſeeds a like quantity, treacle an ounce; boil them in a quart of beer.

POLE-CATS, WEASELS, *&c.* Theſe creatures are very injurious to warrens, dove-houſes, hen-rooſts, *&c.* but the method to take them, in hatches and ſmall iron gins, like thoſe made for foxes, are ſo well known that nothing need to be ſaid of them; only for preſerving dove-houſes from being deſtroyed by pole-cats, they muſt be erected where a ditch or channel may be had to run round them, and this will keep thoſe vermin from making their burrows under ground.

POLL-EVIL, IN HORSES, is a ſort of fiſtula, or deep ulcer between the ears of the pole, or nape of the horſe's neck, which proceeds from corrupt humours falling upon it, or perhaps from ſome bruiſe or blow, or ſome other diſeaſe.

This diſeaſe is produced by different cauſes, and therefore muſt be differently treated. If it proceeds from blows, bruiſes, or any other external violence, let the ſwelling be often bathed with hot vinegar; and if the hair be fretted off by any oozing through the ſkin, inſtead of vinegar alone, uſe a mixture compoſed of two quarts of vinegar, and one of ſpirit of wine. Sometimes the part will be affected with a troubleſome itching, attended with heat and inflammation; in this caſe let the creature be blooded, and poultices, compoſed of bread, milk, and elder flowers, applied. And if this be performed at the beginning of the diſeaſe, and at the ſame time proper phyſic given the creature, the ſwelling will be often diſperſed, and the diſeaſe cured without ſuppuration.

But when the ſwelling appears to be critical, and alſo to have matter formed in it, the beſt, and indeed the only effectual method, is to apply proper poultices, in order to facilitate the ſuppuration, and aſſiſt the burſting of the tumour. Sometimes it will be neceſſary to open it with a knife, in order to evacuate the forbidden matter. In this caſe you muſt be very careful not to wound the tendinous ligament, that runs along the neck under the mane: and when the matter is formed on both ſides, two apertures will be neceſſary; for you muſt by no means divide the ligament, though it will be neceſſary to give vent to the matter formed on each ſide.

Sometimes the matter will flow in large quantities, reſembling melted glue, and be of an oily conſiſtence. When this happens, a ſecond inciſion will be neceſſary, eſpecially if you diſcover any cavities. The orifices muſt be made in the moſt depending parts, and the wound dreſſed at firſt with the common digeſtive liniment, compoſed of turpentine, honey, and tincture of myrrh; and after digeſtion, with the precipitate ointment. Experience has alſo proved the following medicine to be of very great uſe in the poll-evil.

Take of vinegar or ſpirit of wine half a pint; of vitriol diſſolved in ſpring-water, half an ounce: and of tincture of myrrh, four ounces.

Waſh the wound with this mixture twice a-day, and lay over the part a ſufficient quantity of tow ſoaked in vinegar, and the white of eggs beat together; obſerving that if the fleſh be very luxuriant, to pare it down with the knife, before you waſh the wound. And by this application alone, you may often cure the poll-evil, without the trouble and expence of other medicines.

But the ſhorteſt method of curing this diſeaſe, is what the farriers call ſcalding; and this will ſucceed when the wound is foul, of a bad diſpoſition, and a large flux of matter. The ſcalding mixture, generally uſed, is made in the following manner: Take of corroſive ſublimate, verdigris in fine powder, and *Roman* vitriol, of each two drachms; of green vitriol, or copperas, half an ounce; of oil of turpentine and train oil, each eight ounces; and of rectified ſpirits of wine, four ounces; mix the whole together in a bottle. Or,

Take *Ægyptiac* ointment, two ounces; oil of vitriol, one ounce; oil of turpentine, two ounces; and of common ſweet oil, half a pint. Or,

Take corroſive mercury, one drachm; *Roman* vitriol, one drachm; verdigris, one drachm and an half; rectified ſpirit of wine, two ounces; and of common ſweet oil, ſix ounces.

This latter is ſtronger than the firſt.

This is the ſtrongeſt compoſition of what is termed the ſcalding mixture: and very often a milder will be ſufficient, which may be made by changing the corroſive ſublimate for red precipitate, and the *Roman* for white vitriol.

The manner of uſing the above compoſition is this: they firſt clean the abſceſs very well with a ſponge dipt in vinegar; then they put a proper quantity of the mixture into an iron ladle, with a ſpout to it, make it ſcalding hot, pour it into the abſceſs, and cloſe the lips together with one or more ſtitches. They let this continue two or three days, when they open the orifice, and examine the abſceſs; if they find it good matter and not in too great quantity, thay conclude that the diſeaſe will be cured without any other application, except bathing it with ſpirits of wine. But if, on the contrary, the matter flows abundantly, and at the ſame time appears of a thick conſiſtence, the operation muſt be

be repeated till the flux of matter leſſens, and acquires a thick conſiſtence.

PONDS FOR FISH. As for the making of theſe ponds, it is agreed, thoſe grounds are beſt which are full of ſprings, and apt to be mooriſh, for the one will breed them well, and the other will preſerve them from being ſtolen.

The ſituation of the pond is alſo to be conſidered, and the nature of the currents that fall into it; likewiſe that it be refreſhed with a little water, or with the rain-water that falls from the adjacent hilly ground.

It has been obſerved, that thoſe ponds which receive the ſtale and dung of horſes, and other cattle, breed the largeſt and fatteſt fiſh.

As to making a fiſh-pond, let the head of it be the loweſt part of the ground, and the trench of the floodgate or ſluice have a good ſwift fall, that it may not be too long in emptying when you have a mind to draw it.

You may plant willows or owlers about it, or both, and then caſt in bavins in ſome places not far from the ſide, and in the moſt ſandy places, for fiſh both to ſpawn upon, and to defend them and the younger fry from the many fiſh, and alſo from vermin that lie at watch to deſtroy them, eſpecially the ſpawn of the carp and tench, when it is left to the mercy of ducks or vermin.

LEBAULT, DUBRAVIUS, and others adviſe, that you make choice of ſuch a place for your pond, that it may be refreſhed with a little rill, or with rain-water running or falling into it; by which fiſh are more inclined both to breed, and are alſo refreſhed and fed the better, and do prove to be of a much ſweeter and more pleaſant taſte.

To which end it is obſerved, that ſuch pools as be large and have moſt gravel, and ſhallows where fiſh may ſport themſelves, do afford fiſh of the pureſt taſte. And note, that in all pools it is beſt to have ſome retiring place; as namely hollow banks, or ſhelves, or roots of trees to keep them from danger; and, when they think fit, from the extreme heat of ſummer; as alſo, from the extremity of cold in winter. And note, that if many trees be growing about your pond, the leaves thereof falling into the water, make it nauſeous to the fiſh, and the fiſh to be ſo to the eater of it.

It is noted that the tench and eel love mud, and the carp loves gravelly ground, and in the hot months to feed on graſs: you are to cleanſe your pond, if you intend either profit or pleaſure, once every three or four years, eſpecially ſome ponds, and then let it lie dry ſix or twelve months, both to kill the water-weeds, as water lilies, candocks, reate and bulruſhes that breed there; and alſo that as theſe die for want of water, ſo graſs may grow in the pond's bottom, which carps will eat greedily in all the hot months if the pond be clean. The letting your pond dry and ſowing oats in the bottom is alſo good, for the fiſh feed the faſter: and being ſome time let dry, you may obſerve what kind of fiſh either increaſes or thrives beſt in that water; for they differ much both in their breeding and feeding.

LEBAULT alſo adviſes, that if your ponds be not very large and roomy, that you often feed your fiſh by throwing into them chippings of bread, curds, grains, or the entrails of chickens or of any fowl or beaſt that you kill to feed yourſelves; for theſe afford fiſh a great relief. He ſays that frogs and ducks do much harm, and devour both the ſpawn and the young fry of all fiſh, eſpecially of the carp.

Avoid much ſhooting at wild-fowl, for that frightens, harms and deſtroys the fiſh.

Note, that carps and tench thrive and breed beſt when no other fiſh is put with them into the ſame pond; for all other fiſh devour their ſpawn, or at leaſt the greateſt part of it. And note, that clods of graſs thrown into any pond, feed the carps in ſummer; and that garden earth and parſley thrown into a pond, recovers and refreſhes the ſick fiſh. And note, that when you ſtore your pond, you are to put into it two or three melters for one ſpawner, if you put them into a breeding-pond; but if into a nurſe pond, or feeding-pond, in which they will not breed, then no care is to be taken, whether there be moſt male or female carps.

It is obſerved, that the beſt ponds to breed carps are thoſe that are ſtony or ſandy, and are warm, and free from wind, and that are not deep, but have willow trees and graſs on their ſides, over which the water does ſometimes flow: and note, that carps do more uſually breed in marle-pits, or pits that have clean clay bottoms, or in new ponds, or ponds that lie dry a winter ſeaſon, than in old ponds, that be full of weeds.

As the method of ordering fiſh-ponds is now very well known, and there are few books of gardening but what give ſome directions about it, it is hoped the reader will think the following quotation from BOWLKER ſufficient.

"When you intend to ſtock a pool with carp or tench, make a cloſe ethering-hedge acroſs the head of the pool about a yard diſtance of the dam, and about three feet above the water, which is the beſt refuge for them I know of, and the only method to preſerve pool-fiſh; becauſe if any one attempts to rob the pool, muddies the water, or diſturbs it with nets, moſt of the fiſh, if not all, immediately fly between the hedge and the dam, to preſerve themſelves; and in all pools, where there are ſuch ſhelters and ſhades, the fiſh delight to ſwim backwards and forwards, through and round the ſame, rubbing and ſporting themſelves therewith. This hedge ought to be made chiefly of orls, and not too cloſe, the boughs long and ſtraggling towards the dam, by which means you may feed and fatten them as you pleaſe. The beſt baits for drawing them together at firſt are, maggots or young waſps; the next are, bullock's-brains, and lob-worms chopped together, and thrown into the pools in large quantities, about two hours before ſun-ſet, ſummer and winter. By thus uſing theſe ground-baits once a day for a fortnight together, the fiſh will come as conſtantly and naturally to the place as cattle to their fodder; and to ſatisfy your curioſity, and convince you herein, after you have baited the pool for ſome time, as directed, take about the quantity of a two-penny loaf of wheaten bread, cut it into ſlices and wet it; then throw it into the pool where you had baited, and the carp will feed upon it: after you have uſed the wet bread three or four

four mornings, then throw ſome dry bread in, which will lie on the top of the water: and if you watch, out of ſight of the fiſh, you will preſently ſee them ſwim to it and ſuck it in. I look upon wheaten bread to be the beſt food for them, though barley or oaten bread is very good. If there be tench and pearch in the ſame pond, they will feed upon the four former baits, and not touch the bread. Indeed there is no pool-fiſh ſo ſhy and nice as carp. When the water is diſturbed, carp will fly to the ſafeſt ſhelter they can; which I one day obſerved, when aſſiſting a gentleman to fiſh his pool; for another perſon diſturbed the water, by throwing the caſting-net, but caught not a carp; whereupon two or three of us ſtripped, and went into the pool, which was provided with ſuch a ſort of a hedge in it as is before deſcribed, and thither the carp had fled for ſafety: then fiſhing with our hands on both ſides of the hedge, that is, one on either ſide, we catched what quantity of carp was wanting.

The beſt way to make the pond-head ſecure, is to drive in two or three rows of ſtakes about ſix feet long, at about four feet diſtance from each other, the whole length of the head, the firſt row of which is to be rammed, at leaſt, four feet deep, that they may ſtand ſtrong and ſure.

Or if you happen to find the bottom falſe, eſpecially if it conſiſts of a running-ſand, you may beſides lay the foundation with quick-lime, which ſlacking will make it as hard as a ſtone.

Then dig your pond, and caſt the earth among the piles and ſtakes, and when they are well covered over, drive in another row or two over them, ramming in the earth in the void ſpaces, that it may lie cloſe and keep in the water; and ſo you may continue ſtakes upon ſtakes, ramming in the earth till your pond-head be of the height you deſigned it.

The inſide of the dam muſt be very ſmooth and ſtrait, that no current may have power over it.

If the pond carry ſix feet water, it is enough; but it muſt be eight feet deep, to receive the freſhes and rains that ſhould fall into it.

It would alſo be advantageous to have ſhoals on the ſides, for the fiſh to ſun themſelves on, and lay their ſpawn on; beſides on other places, ſome holes, hollow banks, ſhelves, roots of trees, iſlands, *&c.* to ſerve as their retiring places.

Beſides it is to be conſidered, whether or not you deſign your pond for a breeder, if you do, never expect any large carps from thence, for the greatneſs of the number of the ſpawn will overſtock the pond, and a ſtore-pond has always been accounted the beſt for large carps.

If you would make a breeding-pond become a ſtore-pond, when you ſue, ſee what quantity of carp it will contain, and then put in either all melters, or all ſpawners, by which means, in a little time, you may have carps that are both large and exceeding fat; thus by putting in but one ſex, there is an impoſſibility of the increaſe of them; but the roach will, notwithſtanding, multiply abundantly.

As to the ſituation and diſpoſition of the principal waters, a method muſt be obſerved, to reſerve ſome great waters for the head quarters of the fiſh, from whence you may take, or wherein you may put, any ordinary quantity of fiſh. You ſhould alſo have ſtews, and other auxiliary waters, ſo that you may convey any part of the ſtock from one to the other, by which means you will never want, and need not abound; and farther, loſe no time in the growth of the fiſh, but employ the water, as land is employed, to the beſt advantage.

You are to view the grounds, and find out ſome fall between the hills, as near a flat as may be, ſo as to leave a proper current for the water.

If there be any difficulty in making a judgment of this, take an opportunity after ſome ſudden rain, or the breaking up of a great ſnow in winter, and you will plainly ſee which way the ground caſts, for the water will take the true fall, and run accordingly.

The condition of the place muſt determine the quantity of the ground which is to be covered with water.

For example; we may well propoſe in all fifteen acres in three ponds, or eight acres in two, and not leſs; and theſe ponds ſhould be placed one above another, ſo that the point of the lower may almoſt reach the upper: which contrivance is no leſs beautiful than advantageous.

The head, or bank, which by ſtopping the current is to raiſe the water, and ſo make a pond, muſt be built with clay and earth, taken out of the pan or hollow digged in the loweſt ground above the bank; and that pan ſhould be ſhaped as a half oval, the flat of which comes to the bank, and the longer diameter runs ſquare from it. *See* BANKS.

POND-HEADS, TO MAKE AND RAISE: it is evident that if a dam be made acroſs a valley, or low marſh, where the water runs, it will produce a pond: and as the dam or bank is higher than the centre-point, which lies againſt the loweſt ground, ſo much the deeper is the pond; and if the hills on each ſide riſe ſteep and quick, the water ſtopt will cover leſs ground than if they had a ſlow or gentle aſcent.

For the making of the bank head, be ſure it be firm, and not apt to leak, which it will certainly do if made only of earth; therefore it is neceſſary to carry up a bed or wall of clay, the whole length of the bank, with a good ramming a foot or two from below the ſurface of the ground, to ſuch a height as the water is deſigned to ſtand, allowing a ſplit or two at leaſt for that purpoſe, otherwiſe the water lying under a great weight from its depth, will work itſelf underneath.

As the clay is rammed, take care that earth be brought to carry up the bank with it, in order to prevent its being ſearched and cracked by the height of the ſun, which is of very ill conſequence; and therefore when come to its full height, it muſt forthwith be covered and cloſed with mould: you muſt allow three feet to the breadth of this clay bed, raiſing it to ſuch a height as you would have the water ſtand, and raiſe it with earth three feet higher; though two feet would ſerve, were it not that the unavoidable ſinking of the bank, will require at leaſt one foot.

When ſeveral ponds or ſtews are projected to be

ſunk

ſunk at the ſame time, there will be had great advantage by the clay taken out of them, that will be much more than is neceſſary for the bed, and which may ſtrengthen the bed, upon account of its being preſſed down by the tumbrels or carts, on each ſide of it, and the bank will be made very firm; it will likewiſe ſave the breaking of the ground within the pond, which is a great benefit in the feed of the fiſh.

As to the dimenſions, they are governed by the manner of the hill riſing: for if it be ſteep, then in order to cover a ſufficient quantity of ground, you muſt raiſe the bank higher, and of conſequence it muſt be made ſtronger than when the ground has a gentle aſcent, ſo as a moderate height would throw the water upon ground enough; of this there is a great difference, for in ſome places ten feet high may cover as much as twenty feet in others, which may be eaſily diſcovered by the water-level, whereby you may ſtake the water-line upon the ground to any height, and fix the determined height of the bank.

PONT-LEVIS is a diſorderly reſiſting action of a horſe, in diſobedience to his rider, in which he rears up ſeveral times running, and raiſes ſo upon his hind legs, that he is in danger of coming over.

POPE, OR RUFF. This fiſh with a double name, is ſmall, and rarely grows bigger than a gudgeon; in ſhape not unlike the pearch, but reckoned better food, being pleaſant in taſte. His haunts are the deepeſt running places in a gravel river, the exact bottom whereof having found by plumbing, and your hooks being baited with ſmall red worms, or brandling worms, you may fiſh with two or three hooks, and you will have excellent ſport; for he is a greedy biter, and they are in great ſhoals together, where the water is deep, ſmooth and calm; ſo that if you would take a good quantity of them, bait the ground with earth, and fiſh for them with a ſmall red worm.

PORTER TO CARRY. Uſed in the *French* manage, for directing or puſhing on a horſe at pleaſure, whether forwards, upon turns, &c.

POULTRY is a term given to all kinds of domeſtic fowls brought up in a farm-yard, as cocks and hens, ducks, geeſe, turkies, &c. all of which we ſhall ſpeak of, and begin with

Dunghill Cocks and Hens, generally termed Fowls.

The country yard cannot be ſaid to be complete, till well ſtocked with fowl, which advantage will appear to every one who keeps them. The pooreſt villager may reap the ſame benefit from the products as the moſt ſubſtantial farmer, they being able to ſhift for themſelves the greateſt part of the year, by their feeding on inſects, corn, or any thing, almoſt, that is edible by any ſort of animal.

I ſhall not enter into a minute deſcription of the ſeveral ſorts of cocks and hens, only adviſe you to chuſe thoſe that are the beſt breeders, and the beſt layers; the oldeſt being always reckoned the beſt ſitters, and the youngeſt the beſt layers; but no ſort will be good for either, if they are kept too fat; the beſt age to ſet a hen for chickens is from two years old to five, and the beſt month to ſet them is *February*; though any month between that and *Michaelmas* is good. A hen ſits twenty-one days, whereas geeſe, ducks, and turkies, ſit thirty. Obſerve to let them have conſtantly meat and drink near them, while they ſit, that they may not ſtraggle from their eggs and chill them.

One cock will ſerve ten hens.

If fowls are fed with buck or *French* wheat, or with hemp-ſeed, it is ſaid, they will lay more eggs than ordinary; and buck-wheat, either whole or ground, made into paſte, which is the beſt way, is a grain that will fatten fowls or hogs very ſpeedily; but the common food uſed is barley-meal, with milk or water, but wheat-flour moiſtened is beſt.

A good hen ſhould not differ from the nature of the cock; ſhe ſhould be working, vigilant and laborious, both for herſelf and her chickens; in ſize, the biggeſt and largeſt are the beſt, every proportion anſwerable to thoſe of the cock, only inſtead of a comb, ſhe ſhould have upon her crown a high thick tuft of feathers.

She ſhould have good and ſtrong claws; but it will be better if ſhe has no hinder claws, becauſe they often break the eggs, and, beſides, ſuch as have, do ſometimes prove unnatural.

Crowing hens are neither good layers nor good breeders.

The elder hens are rather to be choſen for hatching than the younger, becauſe they are more conſtant, and will ſit out their time; but if you chuſe for laying, take the youngeſt, becauſe they are luſty, and prone to generation; but do not chuſe a fat hen for either of theſe purpoſes; for if ſhe be ſet, ſhe will forſake her neſt; the eggs ſhe lays will be without ſhells, and beſides ſhe will grow ſlothful and lazy.

Thoſe eggs that are laid when the hens are a year and a half, or two years old, are the beſt; you muſt at that time give the hens plenty of victuals, and ſometimes oats with fenugreek to heat them, if you would have large eggs; for thoſe that are fat commonly lay but ſmall ones; mix ſome chalk with their food, or mix ſome bruiſed brick with their bran, moiſtened with a little water, and give them their belly-full of half-boiled barley, with vetch and millet.

Some hens have the ill faculty of eating their eggs: to prevent this, take out the white of an egg, and put moiſt plaiſter round about the yolk, and ſuffer it to grow hard; and when the hen attempts to eat it, and finds ſhe cannot do it, ſhe will ſoon give over breaking her eggs.

You may likewiſe pour a clear plaiſter upon the yolk of an egg, and let it harden, ſo that it may ſerve for a ſhell, and put into the neſt; or you may ſhape an egg of plaiſter, or chalk, and let that be for a neſt egg.

Thoſe hens that have ſpurs often break their eggs, and generally will not hatch them, and they will ſometimes eat them; theſe muſt be ſcowered, as well as thoſe that ſcratch and crow like a cock; firſt, by plucking their great quills out of their wings, and by feeding them with millet, barley, and paſte, cut into bits, pounded acorns and bran, with pottage or

crumbs of wheat-bread, ſteeped in water, or barley-meal.

Keep them in a cloſe place, and at reſt, and pull the feathers from their heads, thighs, and rumps. If a hen be too fat, or has a looſeneſs, ſhe will lay windy eggs.

A hen will ſit well from the ſecond year of her laying to the fifth: the beſt time to ſet a hen, that the chickens may be large and moſt kindly, is in *February*, in the increaſe of the moon, that ſhe may diſcloſe the chickens in the increaſe of the next new moon, being in *March*; for one brood of this month's chickens is worth three of thoſe of any other month.

Hens may ſet from *March* to *October*, and have good chickens, but not after that time, for the winter is a great enemy to their breeding.

A hen ſits juſt twenty-one days, and if you ſet a hen upon the eggs of ducks, geeſe, or turkies, you muſt ſet them nine days before you put her own eggs to her, of which a hen will cover nineteen; but always ſet an odd egg, what number ſoever you ſet her with.

It will alſo be proper to mark one ſide of the eggs when you put them under the hen, and to obſerve whether ſhe turns them from the one ſide to the other, and if ſhe does not, then take an opportunity when ſhe is from them to turn them yourſelf. But a hen that does not turn them herſelf is of the leſs value.

Take care that the eggs you ſet a hen on be new, which may be known by their being heavy, full, and clear; this may be diſcovered by looking through them in the ſun; nor do you chooſe the largeſt, for they have oftentimes two yolks, and though ſome are of opinion that ſuch will produce two chickens, it proves commonly a miſtake, and if they do, they generally prove abortive and monſtrous.

A hen muſt not be taken off or diſturbed from her neſt, for that will make her utterly forſake it.

While ſhe is ſitting you muſt place her meat and water near her, that her eggs may not cool while ſhe is gone to ſeek her food. If ſhe ſhould be abſent from her neſt, ſtir up the ſtraw, and make it ſoft and handſome, and lay the eggs in the ſame order ſhe left them.

It is very neceſſary to perfume her neſt with roſemary or brimſtone, and you muſt take care that the cock does not come at the eggs and ſit upon them, for he will endanger the breaking of them, and cauſe the hen not to like her neſt ſo well as before.

When hens are laying, the old ſtraw ſhould be taken away, and freſh put in, that it may not breed fleas, or other vermin, which much incommodes them.

The maladies incident to hens are as follow:

Setting hens are ſometimes troubled with lice and vermin: for the cure, pound burnt cummin and ſtapniſgar, of each equal quantities; and mix it with wine, and rub the hens with it, or waſh them with a decoction of wild lupines.

If hens are troubled with a looſeneſs, mix a handful of barley-meal and as much wax, in ſome wine; make it into a maſs, and give it them in the morning before they have any other meat, or elſe let them drink a decoction of apples or quinces.

Hens, by laying too many eggs, ſometimes exhauſt their ſtrength and languiſh: the ſame likewiſe happens by hens ſitting too long; to remedy this, take the white of an egg, which you muſt roaſt till it looks as if it was burnt; mix this with an equal quantity of dried raiſins, alſo burnt, and give the hen this faſting.

Your hen-houſe muſt be large and ſpacious, with a pretty high roof and ſtrong walls, to keep out both thieves and vermin; let there be windows on the eaſt ſide, that they may enjoy the benefit of the riſing ſun, ſtrongly lathed and cloſe ſhut; upwards, and round about the inſide of the wall upon the ground, ſhould be made large pens of three feet high, for geeſe, ducks, and large fowls to ſit in, and near unto the covering of the houſe ſhould be long perches, reaching from one ſide of the houſe to the other, on which ſhould ſit cocks, hens, capons, and turkies, each on ſuch perches as they are diſpoſed.

At another ſide of the houſe, at the darkeſt part of the ground pens, fix hampers full of ſtraw for neſts, in which hens ſhould lay their eggs; but when they ſit to hatch chickens, then let them ſit on the ground, otherwiſe it will be dangerous.

Alſo let there be pins ſtuck in the walls, that the poultry may climb to their perches with the greateſt eaſe.

The floor muſt not be paved, but made of earth ſmooth and eaſy. Let the ſmaller fowl have a hole made at one end of the houſe, to go in and come out at when they pleaſe, or elſe they will ſeek out roofts in other places; but of larger fowl, you may open the door morning and evening.

It would be better if the hen-houſe was ſituated near ſome kitchen, brewhouſe, bakehouſe, or kiln, where it may have the heat of the fire, and be perfumed with ſmoke, which is to pullets both delightful and wholeſome.

As ſoon as your chickens are hatched, if any be weaker than the reſt, wrap them in wool, and let them have the heat of the fire; it will alſo be very good to perfume them with roſemary; the firſt hatched chickens may be kept in a ſieve till the reſt are diſcloſed, for they will not eat for two days; ſome ſhells being harder than others, they will require ſo much more time in opening; but unleſs the chickens are weak, or then unkind, it will not be amiſs to let them continue under her, for ſhe will nouriſh them kindly.

When they are two days old, give them very ſmall oatmeal, ſome dry, and ſome ſteeped in milk, or elſe crumbs of fine white bread; and when they have gained ſtrength, curds, cheeſe parings, white bread, cruſts ſoaked in beer or milk, barley-meal, or wheaten bread ſcalded, or the like ſoft meat, that is ſmall and will be eaſily digeſted.

It is neceſſary to keep them in the houſe for a fortnight, and not ſuffer them to go abroad with the hen to worm. Green chives chopped among their meat is very good, and will preſerve them from the rye or other

diſeaſes

diſeaſes in the head, and never let them want clear water, for puddle water will be apt to give them the pip.

Nor muſt you let them feed upon tares, darnel, or cockle, for theſe are very dangerous to young ones, nor let them go into gardens till they are ſix weeks old.

If you would have them crammed, coop them up when the dam has forſaken them, and cram them with dough made of wheaten meal and milk, which dip in milk, and thruſt down their throats, but let them not be too big, leſt you choak them; and they will be fat in a fortnight.

To diſtinguiſh whether a chicken is good or not: after a chicken is killed it will be ſtiff and white, and firm in the vent, if new killed; but tender, and green in the vent, if ſtale.

If you rub your finger on the breaſt of a ſcalded chicken, if it be new killed it will feel rough; but if ſtale, ſlippery and ſlimy.

A crammed chicken, if it be fat, will have a fat rump, and a fat vein upon the ſide of the breaſt of her, like a pullet.

In order to fatten chickens, you muſt put them into coops, and feed them with barley-meal; put likewiſe a ſmall quantity of brickduſt into their water, which they ought never to be without: this laſt will give them an appetite to their meat, and fatten them very ſoon; for in this caſe it muſt be conſidered, that all fowls and birds have two ſtomachs, as they may be called, the one is their crop, that ſoftens their food, and the other the gizzard, that macerates the food; in the laſt we always find ſmall ſtones and ſharp ſand, which help to do that office, and without them or ſomething of that kind, a fowl will be wanting of its appetite to eat; for the gizzard cannot maſticate, or as it may be ſaid, grind the food faſt enough to diſcharge it from the crop, without ſuch ſand or ſtones: and in this caſe the brickduſt is aſſiſting.

Ducks.

Ducks are very neceſſary for the huſbandman's yard, in that they require no charge in keeping; they live on loſt corn, worms, ſnails, &c. for which reaſon they are very good for gardens. Once in a year they are very good layers of eggs, eſpecially a ſort of duck that turns up the bill more than the common kind; and when they ſit they need little attendance, except to let them have a little barley, or offal corn and water near them, that they may not ſtraggle far from their neſt to chill their eggs.

In general it is found more profitable to ſet a hen upon the ducks eggs, than any kind of duck whatever, becauſe the old one leads them when hatched, too ſoon to the water, where, if the weather be froſty, ſome will be loſt. They follow the hen a good while upon the land, and ſo get hardy before they venture to the water.

About thirteen eggs is the proper number to let a duck ſit upon; the hen will cover as many of theſe as of her own, and will bring them up well: ſo that every way ſhe is more profitable for that purpoſe.

When the ducklings are hatched they require no care, if the weather be tolerably good; but if they happen to be produced in a very rainy ſeaſon, it would be right to keep them under cover a little, eſpecially in the night; for though the duck naturally loves water, it requires the aſſiſtance of its feathers, and, till they are grown, is eaſily hurt by the wet.

The fattening of ducks at any age is very eaſy, and whether it be the duckling, or the grown duck, the method to be uſed is exactly the ſame. They are to be put in a quiet dark place, and kept in a pen, where they are to have plenty of corn and water: any kind of corn will do, and with this ſingle direction, they will fatten themſelves extremely well in fifteen or twenty days; and will bring a price that very well repays their feeding.

Geeſe.

The benefit ariſing from geeſe are, for food, their feathers, and their greaſe. They will live upon commons, or any ſort of paſture, and need little care and attendance; only they ſhould have plenty of water. The largeſt geeſe are reckoned the beſt, but there is a ſort of *Spaniſh* geeſe that are much better layers and breeders than the *Engliſh*, eſpecially if their eggs are hatched under an *Engliſh* gooſe.

Geeſe lay in the ſpring, the earlier the better, becauſe of their price and of their having a ſecond brood. They commonly lay twelve or ſixteen eggs each. You may know when they will lay, by their carrying of ſtraw in their mouths, and when they will ſit, by their continuing on their neſt after they have laid. A gooſe ſits thirty days; but if the weather be fair and warm, ſhe will hatch three or four days ſooner. After the goſlings are hatched, ſome keep them in the houſe ten or twelve days, and feed them with curds, barley-meal, bran, &c. After they have got ſome ſtrength, let them out three or four hours in a day, and take them in again, till they are big enough to defend themſelves from vermin. One gander will ſerve five geeſe.

If you would fatten green geeſe, you muſt ſhut them up when they are about a month old, and they will be fat in about a month more. Be ſure to let them have always by them in a ſmall rack ſome fine hay, which will much haſten their fatting. But for fatting of older geeſe, it is commonly done when they are about ſix months old, in or after harveſt, when they have been in the ſtubble fields, from which food ſome kill them, which is a good way; but thoſe who have a mind to have them very fat, ſhut them up for a fortnight or three weeks; and feed them with oats, ſplit beans, barley-meal, or ground malt mixed with milk, the beſt thing to fatten them with being malt mixed with beer. But in fatting of all water fowl you may obſerve, that they uſually ſit with their bills on their rumps, where they ſuck out moſt of their moiſture and fatneſs, at a ſmall bunch of feathers, which you will find ſtanding upright on their rumps and always moiſt, with which

they trim their feathers, which makes them oily and ſlippery more than other fowls feathers are, that the water may ſlip off them, which, if cut away cloſe, will make them fat in leſs time, and with leſs meat than otherwiſe. Geeſe will likewiſe feed on and fatten well with carrots cut ſmall, and given them; or if you give them rye before or about *Midſummer*, it will ſtrengthen them, and keep them in health, that being commonly their ſickly time.

In ſome countries they ſhear the geeſe for their feathers, and ſome pull them twice a year; but this latter way is more injurious to them, and therefore it is better ſtaying till moulting time, or till their death for their feathers.

Turkies.

Turkies are fowls that proſper very well in open countries, where there is not ſhelter to harbour ſuch vermin as deſtroy them: for they are naturally inclined to ramble. The hens likewiſe are ſo negligent of their young, that whilſt they have one to follow them, they never take any care of the reſt; and therefore there muſt be a great deal of care taken of them whilſt they are young, to watch them, and to keep them warm, they being a bird that cannot bear the cold. But ſome, where they have a conveniency of a ſmall cover near the houſe, let them take their liberty, and ſeek their own neſts; but it is only in ſome particular places that they do well with ſuch management. I knew a gentleman that had a hen turkey of the wild kind from *Virginia*, of which, and an *Engliſh* cock, he raiſed a very fine breed, that bred wild in the fields, and always became tame when grown up; they were a very hardy breed, and much larger than ours, and reared their young ones without any care or trouble, breeding much better than our *Engliſh*.

If you keep them with corn, they are very great feeders, and will devour a great deal; but if left to their liberty when grown up, they will get their own living, without either trouble or charges, by feeding on herbs, ſeeds, &c.

Turkies being very apt to ſtraggle, will often be laying their eggs in ſecret places, and therefore the common ſort of them muſt be often watched, and made to lay at home. They begin to lay in *March*, and will ſit in *April*. Eleven or thirteen eggs are the moſt they ſit on. They hatch in between twenty-five and thirty days; and when they have hatched their brood, you muſt be careful to keep the young ones warm, for the leaſt cold kills them. Feed them either with curds, or green freſh cheeſe cut in ſmall pieces. Let their drink be new milk, or milk and water. Some give them oatmeal and milk boiled thick together, into which they put wormwood chopped ſmall, and ſometimes eggs boiled hard, and cut in little pieces. You muſt feed them often, for the hen will not take much care of them, and when they have got ſome ſtrength, feed them abroad in a cloſe walled place, where they cannot ſtray; you muſt not let them out till the dew is off the graſs, taking care to have them in again before night, becauſe the dew is very prejudicial to them.

For the fatting of turkies, ſodden barley is very excellent, or ſodden oats for the firſt fortnight, and for another fortnight cram them as you do capons. They are only to be crammed in a morning, which muſt be given to them warm, and let out all day, being ſometimes fed with corn while out; becauſe, being a ſullen bird, they are apt elſe not to fat ſo kindly.

Their eggs are reckoned very wholeſome, and a great reſtorer of nature.

POUNCES, the talons or claws of a bird of prey.

PRESS UPON THE HAND: a horſe is ſaid to reſiſt, or preſs upon the hand, when either through the ſtiffneſs of his neck, or from an ardour to run too much a-head, he ſtretches his head againſt the horſeman's hand, refuſes the aid of the hand, and withſtands the effects of the bridle.

To preſs or puſh a horſe forwards, is to aſſiſt him with the calves of your legs, or to ſpur him to make him go on.

To PRICK, OR PINCH, is to give a horſe a gentle touch of the ſpur, without clapping them hard to him.

Prick with the right: pinch with the left: pinch with both.

To PRICK, OR PINCH, is an aid; but to bear hard with the ſpur, is correction.

PRICKING OF A HORSE'S FOOT, is the hurt received by a nail drove too far into the foot, ſo as to reach the quick, or preſs the vein in the horſe's foot when he is ſhod. *See* FEET OF A HORSE.

PRICKER (Hunting-term) a hunter on horſeback.

PRICKET, a ſpitter, or young male deer of two years old, that begins to put forth the head.

PRICKING (with Sportſmen) the footing of an hare when ſhe beats on the hard heath way, and her footing can be perceived.

PRICKT, otherwiſe called ACCLOYED, OR RETRATE, &c. in reſpect to horſes, ſignifies only the having a prick by the negligence of the farrier in driving the nails, by their weakneſs, ill pointing or breaking them, which if not preſently taken out, will, in time, break out into a foul ſore: you may diſcern it by the horſe's going lame; but if you would know it more certainly, pinch him round the hoof with a pair of pincers, and when you come to the place aggrieved, he will ſhrink in his foot; or elſe you may try where he is pricked by throwing water on his hoof, for that place where he is hurt will be ſooner dry than the reſt.

PUNCH, a well-ſet, well-knit horſe, is ſhort backed, and thick ſhouldered, with a broad neck, and well lined with fleſh.

PURGATION, IN HORSES. The danger of purging horſes, ſubſiſts only in the imaginations of the inexperienced, in the ill choice of drugs, or in their injudicious adminiſtration. The draſtic, or rough and violent purges (and ſuch, on account of their cheapneſs, are generally in uſe for horſes) of courſe make them ſick, irritate and convulſe their bowels, and occaſion frequent violent ſtrainings, after voiding the ſhower of excrement; ſtrong mercurials have ever theſe effects. Such appearances lead to the erroneous

erroneous concluſion, that a horſe cannot be purged with ſafety; but the mild or eccoprotic purges have no ſuch ill effects, on the contrary, they give a horſe the leaſt poſſible diſturbance, his only puniſhment being the mere ſwallowing the ball or drink, and the temporary deprivation of ſolid meat; and yet theſe conſer much more laſting benefit than the former. The chief of theſe innocent, and at the ſame time efficacious cathartics, equally adapted to the ſalutary purpoſe of cleanſing, exhilarating, and invigorating the human and brute body, are, aloes, ſuccotrine, Turkey-rhubarb, jalap, and the neutral ſalts; medicines ſo exquiſitely fitted by nature to the intention, as to leave us nothing to deſire. If Barbadoes-aloes are made uſe of, a few drachms only ſhould be applied at a time, which will obviate its draſtic effects.

Mr. LAWRENCE, ſays, he has been many years in the conſtant habit of purging horſes with ſalts, and with never failing ſucceſs. The ſaline purges appear to debilitate the animal body by their operation leſs than any others, and to refrigerate the humours more, they are ſpecific in certain caſes, and in fact the idea of elective purgation muſt be allowed to a certain degree; for inſtance, in the caſe of the abſorbent magneſia, which invariably attracts acids, and from the combination reſults a neutral purging liquor. Many horſes require no other purges whatever than ſalts, and by the uſe of them may be kept in the firſt ſtyle of condition. They are alſo excellent alteratives, as one might fairly preſume previous to experience, by the analogy of the ſalt marſhes, where horſes receive ſo much benefit from the peculiar ſaline quality of the water.

Salts uſually prove a powerful diuretic to a horſe, and are ſpecifically calculated for ſuch, as from high-feeding, and ſtanding much in the ſtable, are oppreſſed with a redundancy and ſuper-agglutination of the fluids, cauſing inflamed eyes, ſwelled legs, turbid urine, which, if long neglected, ſeldom fail to terminate in the moſt fatal diſeaſes. This purgative is ſuperior to all for producing a fine gloſſy coat and high ſpirits. The ſalts ſeem to act upon the contents of the inteſtines, and the animal humours, by a certain peculiar power of diſſolution, rather than by the accuſtomed ſtimulus of other purgatives; and if they do not always produce thoſe liquid ejections from the horſe, which reſult from the more powerful cathartics, they bring away an equal quantity of dung in a ſoftened ſtate. Horſes, which have had their regular aloetic purges, but which, from hardineſs of conſtitution, or defect of exerciſe, have become groſs and purſive, and at a time, perhaps, when briſk ſervices may be required of them, are ſpeedily and ſafely put in order, by a ſhort courſe of ſalined water.

It hath been hitherto, the general cuſtom to exclude draft cattle from the benefits of cleanſing and evacuation, by cathartic medicines, but, without the appearance of reaſon; for, from the general groſs and ſurfeiting nature of their food, and the ſlowneſs of their motions, encouraging a glutinous, ſluggiſh, and viſcid ſtate of the blood, none of the ſpecies are more in need of artificial helps, in a defect of which, with the intent of prevention, originate thoſe frequent fits of the gripes, ſtaggers, blindneſs, purſiveneſs and greaſe, to which ſtuffed and pampered cart and coach-horſes are ſo notoriouſly ſubject. Salts are particularly uſeful with this ſort of horſes, and the load of dung and urine diſcharged by them from the body of a dray horſe, has been ſo great, that it has been wondered how the inteſtines of the animal could poſſibly contain it.

The complaints of private families in the country, who keep a pair of horſes, are, that they are a perpetual ſource of trouble and uneaſineſs; they are either foot foundered, heavy-eyed, greaſy, or ſo purſive and unwieldy, as to be covered with ſweat upon the leaſt extraordinary exerciſe. Much ſtanding within, and ſtrong nouriſhment, muſt, of neceſſity, produce all this, even as his maſter and miſtreſs acquire the gout upon the ſame principle. Such horſes ſhould have, at leaſt, four or five doſes of phyſic in a year, with alterants in the interim, if required. Their feet ſhould be well ſoaked in water twice a day; they ſhould ſtand looſe in their ſtalls, and, have a daily walk of ſome hours.

The ſigns of a want of purging phyſic, from the common cauſe, over repletion, are ſo obvious, that it is needleſs to repeat them; but occaſionally, although rarely, a lean and hide-bound appearance may indicate the ſame want; the digeſtion may have been injured, and the appetite depraved, by unwholeſome food; the inteſtines may be choaked up with ſlime and filth, the proper nidus of worms: horſes in ſuch a ſtate acquire ſtrength, and thrive much after phyſic. But it is neceſſary to be very cautious in purging weak and delicate horſes; in fact, it had always better be referred to men of profeſſional knowledge. An inflammatory ſtate of the blood always forbids purging; it is abſolutely neceſſary to wait until the fever ſhall have ceaſed. In caſe of much fleſh, exceſſive fulneſs, heat, and coſtiveneſs, begin to reduce the ſubject two or three days previous to the exhibition of a doſe of phyſic; warm bran maſhes, ſalined water, and walking exerciſe, will, in general, be found fully effectual without bleeding, which ever ought to be reſerved for caſes of abſolute neceſſity. There are horſes of habits ſo naturally coſtive, that a double doſe will ſcarce have any material effect upon them; no raſh attempts ſhould ever be made upon theſe with draſtic purges, which may be ſuddenly attended with fatal effects. They are beſt treated with a courſe of ſalts, or alteratives, which have a gradual operation, or laxative clyſters may be exhibited two or three days previous to a doſe of phyſic. The old maxim ought not to be forgot, to forbear purging in extremes of heat or cold, or in wet weather.

Purges are ſeldom given in a liquid form, but in balls, to hide the ill taſte; theſe are of an oblong ſhape, and the ſize of a pullet's egg. It may be of dangerous conſequence to attempt to deliver them too large, particularly thoſe balls which are refined, and neatly made up *ſecundem artem;* you ſhould always form a purge into two balls, frequently into three, merely rolling the compoſition up in a piece of paper, twiſted at each end, and ſmearing it with ſweet oil.

The horſe being prepared the day before, by a bran maſh

maſh or two, ſhould have his phyſic in the morning, faſting, between five and eight, as the ſeaſon may ſuit. Should the animal be very groſs, foul, and full of blood, and any danger be apprehended from his ſtate of body, a pretty large maſh of bran, without corn, may be given him in the middle of the preceding day, only a ſmall lock of hay at night, a ſmall bran maſh early in the morning, and his phyſic two hours after. Maſhes alſo are of great ſervice in the following caſe: A horſe in a very unfit ſtate for a journey, from having been kept high without exerciſe, may yet be wanted in a few days, a time too ſhort to attempt to prepare him by phyſic; give a large bran or pollard maſh at night, inſtead of corn, with little or no hay, and two hours walking exerciſe in the morning faſting, for four days, and white water if the horſe will take it; this will make him empty himſelf very much, amend his appetite and wind, and increaſe his powers of performance.

In the delivery of a ball, no iron inſtrument ſhould ever be made uſe of, ſince it is a rough and terrifying practice. The tongue of the horſe being drawn, and held out of his mouth on the off ſide, the operator receiving the ball or roll from a by-ſtander, places it lengthwiſe between his fingers and thumb, which being ſtretched out, he delivers it with a moderate jirk over the root of the tongue; when letting go the tongue, and placing his hand under the jaw, he elevates the head, in order to watch the paſſage of the ball down the gullet. If it has been plainly diſtinguiſhed paſſing down, another ball may be immediately given, ſhould one remain. But ſome horſes will retain them obſtinately a conſiderable time, in which caſe a little water may be given, or even poured down with the horn, the ſwallowing which aſcertains the ſituation of the ball. In giving a drink, the horſe's head ſhould be held up with a forked ſtick with blunt points, kept for that purpoſe, but by no means with an iron fork, for fear of accident; a nooſe to receive the fork being placed in the mouth over the tuſhes. The account of adminiſtering phyſic in Mr. TAPLIN's *Compendium*, is one of the moſt rational and uſeful any where to be found, and which bears the indubitable marks of ſound judgment, and practical experience.

Every groom ſhould be provided with a good horn, narrow in the ſpout, and wide in the belly, which will hold full half a pint; and much care ſhould be taken that too large a quantity be not diſcharged into the horſe's gullet at once, or too ſuddenly, or that one go-down do not follow the other too haſtily; but ſick or well, he ought in the caſe of giving medicine, to be turned about with the greateſt care, and treated with the utmoſt tenderneſs and patience.

Immediately after the horſe ſhall have ſwallowed the doſe, you may allow him to take two or three go-downs of ſoft water, blood warm, and to eat a lock of hay. Small quantities at a time of clean picked hay may be given him throughout the day, and two or three maſhes of ſweet bran and ground oats, which is the proper diet whilſt the phyſic is in operation. Should it be a laxative drench of the neutral ſalts, and other articles of quick operation, his purging may begin in leſs than twelve hours; but an aloetic purge, the ſloweſt of all others, will lie in his body double the time: beginning to operate the following morning, its effects may continue twelve, twenty-four, thirty hours, or upwards, according to the power and quality of the medicine, and the exiſting ſtate of the horſe's body. Good aloes, rhubarb, or ſalts, the quantities being judiciouſly apportioned, and the body of the patient in a fit ſtate for their reception, never gripe or nauſeate. Cold water ſhould never be allowed. Inſtances may be produced of horſes, which had taken coarſe plantation aloes, made up with a large quantity of common reſin, and being killed outright by a plentiful drink of cold water, the body ſwelling enormouſly, and appearing as if the animal had been deſtroyed by poiſon. It is a property of good aloes, to increaſe the appetite and promote digeſtion; the aloe is alſo an excellent diuretic. The method of taking aloes is to incloſe it in pellets of chewed bread, by which method the pill has no taſte of the aloetic bitter; a ſingle pill or two will perhaps ſerve for common occaſions.

A horſe which uſually ſtands unclothed, ſhould have a ſheet thrown over him during phyſic. The habitual temperature of air in the ſtable may be preſerved, with the caution of obviating all partial currents, more particularly ſhould the weather turn out cold or wet. In caſe of wet, the horſe ſhould not ſtir into the open air, or where rain may be blown upon him. For want of better convenience, turn him about, and walk him up and down the ſtable, if neceſſary, to quicken the purge. If the weather permit, put on his hood, and take him out two or three times in the day, half an hour each time. The purge operating freely, only walk him; if otherwiſe, let him trot a little, but gently, and at his eaſe, the rider by no means hurrying, but allowing him his own time to ſtop during his ejections. In caſe of a cold northerly wind, the leſs he be kept out the better; and additional clothing will then be neceſſary. The ceremony ends upon the phyſic being ſet, namely, when the excrement ſhall have reaſſumed its habitual or natural conſiſtence. After the ſetting, from a week to a fortnight of walking, or very gentle exerciſe, ought to precede labour. No horſe will bear more than one regular doſe in ſeven days.

The *Regular Courſe of Salts*, for a hack or hunter, is from twenty to twenty-four ounces the doſe, the three doſes taking up ſomewhat more than the uſual time. Should the weather be fine, and no danger of wet, the horſe may be moderately ridden, during this phyſic, but no riſks of taking cold ought to be incurred, nor any cold water allowed. The method of giving ſalts, is to prepare the horſe with two or three warm bran and corn maſhes, and to keep him without water, until he become thoroughly in need of it; then take a pail-full, blood-warm, and infuſe four ounces of ſalts, previouſly and thoroughly diſſolved, in half a pint of boiling water; ſhould the horſe refuſe, have patience, and drought will in no great length of time enſure his compliance. Repeat this as convenience may ſerve, until the doſe ſhall be complete, which may be in two days at fartheſt. It is neceſſary to obſerve, that the ſalts ſhould be kept carefully corked up in wide mouthed bottles; for although every one knows, that upon expoſure

to

to the air, they gradually precipitate into a powder, yet all are not aware that thereby about half their efficacy is loſt: again, if inſtead of properly diſſolving the ſalts, as directed, they are careleſsly thrown into the pail of water, to melt at leiſure, (which nine grooms out of ten to ſave trouble would do) they will, great part of them, remain undiſſolved at the bottom of the pail, or again ſhoot into cryſtals from the coldneſs of the water, and be thrown away. Not only ſalts, but aloes, jalap, rhubarb, and other drugs, ought to be carefully preſerved from expoſure to the air. For very large, or very groſs horſes, the doſe of ſalts muſt conſequently be increaſed, and the quantity will be beſt regulated by the experienced operation. It is recommended that GLAUBER'S ſalts be uſed, in preference to any *Lymington*, or other cheap ſubſtitute, to be had at the druggiſts. Very frequently, a ſingle doſe will put a hackney into excellent condition.

A Cooling Purgative Drench, of quick operation. Take the infuſion of four ounces of cremor tartar, in one pint or more of boiling water, which has ſtood three hours or longer, and been frequently ſtirred; ſtrain it fine, and mix therewith, or diſſolve therein, upon the fire, ſix ounces of GLAUBER'S ſalts; add from four drachms to one ounce of jalap, according to the ſtrength required; a gill of ſtrong peppermint; and a ſufficient quantity of warm gruel, or ale, well ſweetened with honey, or treacle. Linitive electuary and ſyrup of buckthorn, may occaſionally be joined.

The Aloetic Purge, for a hack, hunter, or race-horſe, from LAWRENCE. The fineſt ſuccotrine aloes, well powdered, from twelve to fourteen drachms; cremor tartar, an ounce or two; ginger, freſh and finely grated, a tea-ſpoon full; fine ſalad oil, a table-ſpoon full; make the maſs with treacle, or ſyrup of buckthorn, and ſifted oat flour, into two or three balls. This form you may frequently vary and render more quick, by ſubduction of the quantity of aloes, and addition of jalap inſtead: thus, aloes, twelve drachms; jalap, two drachms. Or, aloes, ten drachms; jalap, half an ounce.

The Aloetic Purge, from GIBSON. Succotrine aloes, ten drachms; jalap and ſalt of tartar, of each two drachms; grated ginger, one drachm; chemical oil of anniſeeds, thirty drops; ſyrup of buckthorn, enough to form the ball, which roll in liquorice powder or flour. If neceſſary to quicken, add a drachm or two to the quantity of jalap.

In droptical, or other caſes, where draſtics may be abſolutely neceſſary, nothing is more ſafe and effectual than a ſmall addition of ſcammony, in its pure and natural ſtate, to ſuccotrine aloes, with a ſufficient guard of ſalts, ſoap, or oil; but ſuch potent articles require medical knowledge and judgment in the preſcriber.

The Rhubarb Purge, from GIBSON. Fineſt ſuccotrine aloes one ounce; Turkey-rhubarb, in powder, half an ounce; ginger, grated, one drachm; make the ball with ſyrup of roſes. This is highly recommended for delicate conſtitutions and poor feeders. Or,

Fine aloes, one ounce and two drachms; myrrh, fine powder, half an ounce; ſaffron, and freſh jalap powder, each one drachm; make a ſtiff ball with ſyrup of roſes, or marſhmallows; add a ſmall tea-ſpoon full of rectified oil of amber, roll the ball in liquorice powder.

Purge or Scouring, for a groſs and foul coach or cart-horſe. Succotrine aloes, one ounce; jalap, one ounce; myrrh, finely powdered, half an ounce; cremor tartar, one or two ounces; Caſtile ſoap, half an ounce; ginger, finely grated, two tea-ſpoons full; beſt ſalad oil, one large ſpoon full; make three balls for one doſe, with ſyrup of buckthorn and liquorice powder, or flour.

Mercurial Purge, for ditto. Add to the above, two drachms of calomel, or, if the conſtitution and habit ſhould require it, half an ounce.

Mild Mercurial Purge. Add two drachms of calomel to the aloetic purge of GIBSON.

Should a purge not operate at a proper time, either from the badneſs of the drugs, or cold taken, the horſe will hang down his head and refuſe food, appear ſwelled, heave in his flanks, and frequently throw up his tail without ability to evacuate. In a ſlight caſe of this kind, give the ſize of a pullet's egg of cordial ball, in three pints of warm gruel, and repeat it at night and the following morning; in the interim give ſalined water, blood warm, made as before directed, *i. e.* the ſolution of four ounces of GLAUBER'S ſalts, to a pail, or three gallons, of ſoft water. Walking exerciſe, if fine weather, well clothed, the horſe not being ridden. Or, ſhould the caſe be more ſerious, and the horſe much ſwelled or griped, take balſam of *Peru* and capivi, of each half an ounce, incorporate them with the yolk of a new laid egg; camphor, one drachm, diſſolved in a ſmall quantity of *Hollands* gin, or other ſpirit, juniper berries and anniſeed, powdered, half an ounce each; unrectified oil of amber, two drachms; make a ball with ſyrup of marſhmallows, and roll in liquorice powder. Give plenty of warm gruel and water. If the additional aid of a clyſter ſhould be needed, uſe the following; thin water gruel three quarts, ſweetened with ſix ounces of coarſe ſugar, and well mixed with ſix ounces of ſallad, or linſeed oil: if eaſily to be procured, inſtead of water gruel, make uſe of a decoction of mallows, pellitory, mercury, chamomile, or ſuch as can be obtained, each a large handful, with bay-berries, and ſweet fennel-ſeeds, each one ounce, in a gallon of water, boiled to three quarts. As the horſe recovers, give a few malt maſhes.

In caſe of *ſuper-purgation*, or exceſſive working of the phyſic, the very common conſequence of the uſe of plantation aloes, or a too powerful mercurial doſe, give the following, a quart at a time, with the horn, in the courſe of the day: ſimmer gum arabic and tragacanth, each four ounces; juniper berries and carraway-ſeeds, bruiſed, three ounces; ginger, half an ounce, in five quarts of water, until the gum ſhall be diſſolved. Gruel made of boiled rice is excellent in this intention, given either with the horn, or in the horſe's drink, and the rice by way of maſh. Or, cordial ball in warm ale. Or, prepare a decoction of chamomile, wormwood, freſh anniſeeds, and ſaffron; to three quarters of a pint of this, warm, add a pint of fine old port wine, in which has been diſſolved one ounce of diaſcordium, to be given every three or four hours. The

horſe

horſe continuing to purge, and to eject even the very mucus and lining of his bowels, the foregoing remedies muſt be perſevered in, with the additional help of reſtringent and nutritive clyſters.

The Reſtringent Clyſter. Either pomegranate or oak bark, two ounces; red roſes, green or dry, a handful or two; baluſtines, half an ounce; boil in two quarts of water to one, pour off clear, and diſſolve in the decoction four ounces of diaſcordium. To be repeated. Or, the *Starch Clyſter*, from Mr. CLARKE. Starch jelly, or infuſion of linſeed, one pint; liquid laudanum, one ounce, or two table-ſpoons full; if inflammation be apprehended, ſubſtitute for the laudanum, twenty or thirty grains of opium, well rubbed and diſſolved: the quantity, one pint, rather too ſmall. Broths are uſed in this caſe, and flour or rice milk, ſtrained, but oils are too relaxing; yet, the coats of the inteſtines being abraded, BARTLET recommends mutton ſuet boiled in milk, both as a clyſter and drench, one pint every three hours. Suet, four pounds to one quart of milk. Should the caſe have been ſo dangerous, that the horſe remains weak, and a reſtorative courſe be required; perſevere in the following a few weeks. Looſe ſtable, uſe of a field or yard by day, where he may be kept from water. Make a ſtrong decoction or infuſion of oak-bark, gentian, carduus benedictus, or the male ſow-thiſtle, and *Roman* wormwood, and keep it bottled for uſe; give half a pint to a pint in every pail of water, cold. Frequent rice and malt maſhes, cordial ball in ale. Ox, or ſheep's gall, half a pint in ale, milk warm, twice a day.

The following obſervations on clyſters, is learned from the reſpectable authorities of GIBSON and CLARKE, previous to experience of their truth. A ſyringe ſhould never be uſed, as the diſcharge alarms the horſe. The proper apparatus is a pipe and bag. To a large ox-bladder faſten a pipe of the length of fourteen or fifteen inches, made of box, or any wood ſuſceptible of a ſmooth poliſh; in ſize, about an inch and a half diameter next the bag, and of a gradual taper to the extremity, where the thickneſs ought ſuddenly to increaſe, and be rounded at the point; let the perforation of the pipe be large enough to admit the end of a common funnel, for the purpoſe of pouring the liquor into the bag; certain ivory pipes in uſe, are apt to wound the gut. Place the horſe, if convenient, with his hinder quarters upon the higheſt ground. In caſe of hardened balls of excrement, always back-rake, with the ſmalleſt hand to be procured, well oiled, and nails pared, previous to the adminiſtration of a clyſter. Mr. TAPLIN, although apparently of great ſkill in all matters of medical application, has very much failed, in decrying the advantages of thus extracting the excrement, frequently a matter of the utmoſt neceſſity in both brute and human bodies; in the latter, it is uſually performed with a ſilver inſtrument, formed like a marrow ſpoon. It muſt ſurely be a great point gained, where we can make direct application to the ſeat of the complaint; as, for inſtance, to the blood-veſſels by phlebotomy, in a ſtate of plethora and inflammation. In a laxative clyſter, the quantity may be as much as three quarts; but in thoſe of a reſtringent, anodyne, or nutritious kind, which are to be retained, from a pint to a quart is fully ſufficient. Let your liquid, in reſpect of warmth, be as nearly as poſſible of the common temperature of blood, which being diſcharged with all due caution againſt alarm, hold down the tail a few minutes. Clyſters thus carefully given, create ſo little uneaſineſs to a horſe, that they may be repeated very often, if neceſſary, without much trouble. It will happen in cholics, that horſes drop, frequently, dribblets of excrement, apparently looſe; at the ſame time the colon may be loaded with ſcybala, or hardened dung-balls. The grooms and farriers, like troubleſome and conceited nurſes, judging merely from appearances, and habitually ſparing of labour, and jealous of novelty, decry the uſe of clyſters as ſuperfluous, but on their repetition, are ſurprized at the quantity and ſtate of the diſcharge. The veterinarian and jockey, in all caſes, may hear the groom, but muſt conſult the reaſon of the thing. I repeat it after St. BEL, ſtable-people, in general, cannot be truſted even with a relation of facts; their obſtinacy and conceit ever holds an exact pace with their ignorance. Clyſters are of immenſe ſervice, both in the intent of relaxing, aſtringing, and comforting the inteſtines; and the animal body may be preſerved alive, and nouriſhed by theſe alone, for a conſiderable period, when it may be impracticable to receive any ſuſtenance in the regular way.

The Common Clyſter. Two or three quarts of thin gruel, ſalad oil half a pint, coarſe ſugar, or common ſalt, ſix ounces. To render it more emollient, a decoction of marſh-mallows, ground-ivy, chamomile, and fennel ſeeds, may be ſubſtituted to the gruel.

Laxative Clyſter, add to the above eight ounces of GLAUBER's ſalts. Or, an infuſion of two ounces ſenna in boiling water, and four ounces ſyrup of buckthorn. Or, caryocoſtinum, one ounce. Or, bitter apple half an ounce. Bay berries and anniſeeds bruiſed, one handful each; ſalt of tartar half an ounce, ſyrup of buckthorn four ounces. The bitter apple, berries and ſeed, ſhould be boiled a quarter of an hour. Or, inſtead of the bitter apple, an ounce or two of tincture of jalap.

Nutritive Clyſters. Thick water gruel. Or, broths made of ſheep's head, trotters, or the like, but not too fat. Milk pottage. Rice-milk ſtrained, with warm aromatic ſeeds if neceſſary.

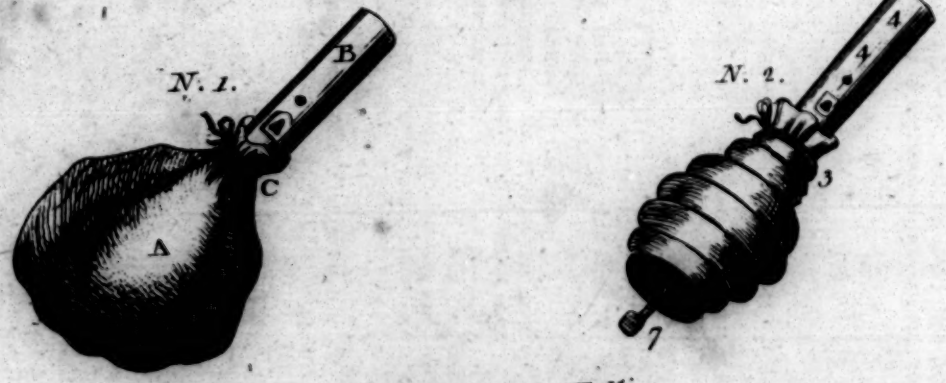
Diuretic Clyſters. Soap four ounces, diſſolved in two quarts of warm water, ſalt one handful. Or, one ounce of Caſtile-ſoap, two quarts of water, Venice-turpentine two ounces, well beat with the yolks of two eggs. Or, in a ſtranguary, to be repeated: Venice turpentine from two to four ounces, beat up with eggs; add by degrees, two quarts of decoction of marſh mallows, parſley and ground ivy, or either, in which from two to four ounces of nitre has been diſſolved; oil half a pint to one pint, and occaſionally one ounce of BATES's anodyne balſam.

The Cordial Ball was firſt introduced by MARKHAM, who ſtiles it the "mirror and maſter of all medicines," and pretends it will cure all inward diſeaſes. Every writer, almoſt, has made ſome variation from the original, affecting to have his own cordial ball. Mr. TAPLIN, has not been fortunate in his attempted improvement of Dr. BRACKEN's ball.

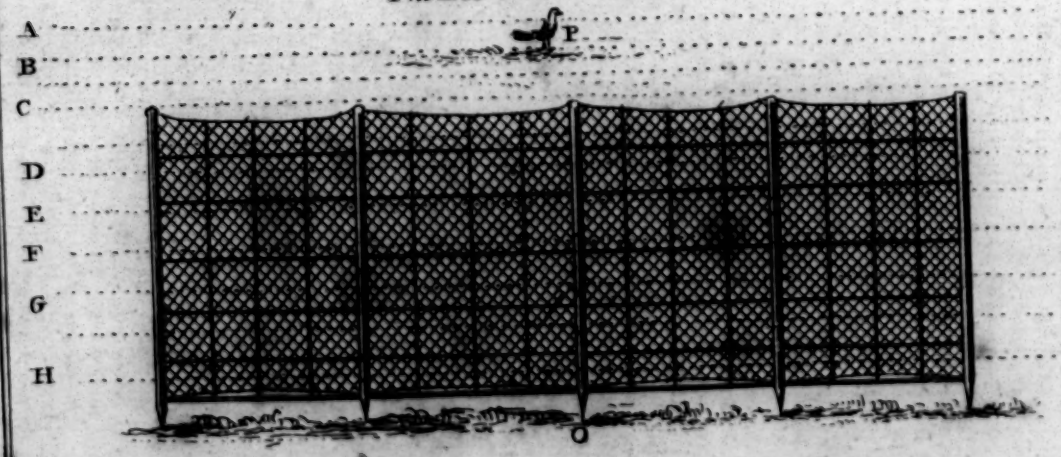
Bracken's

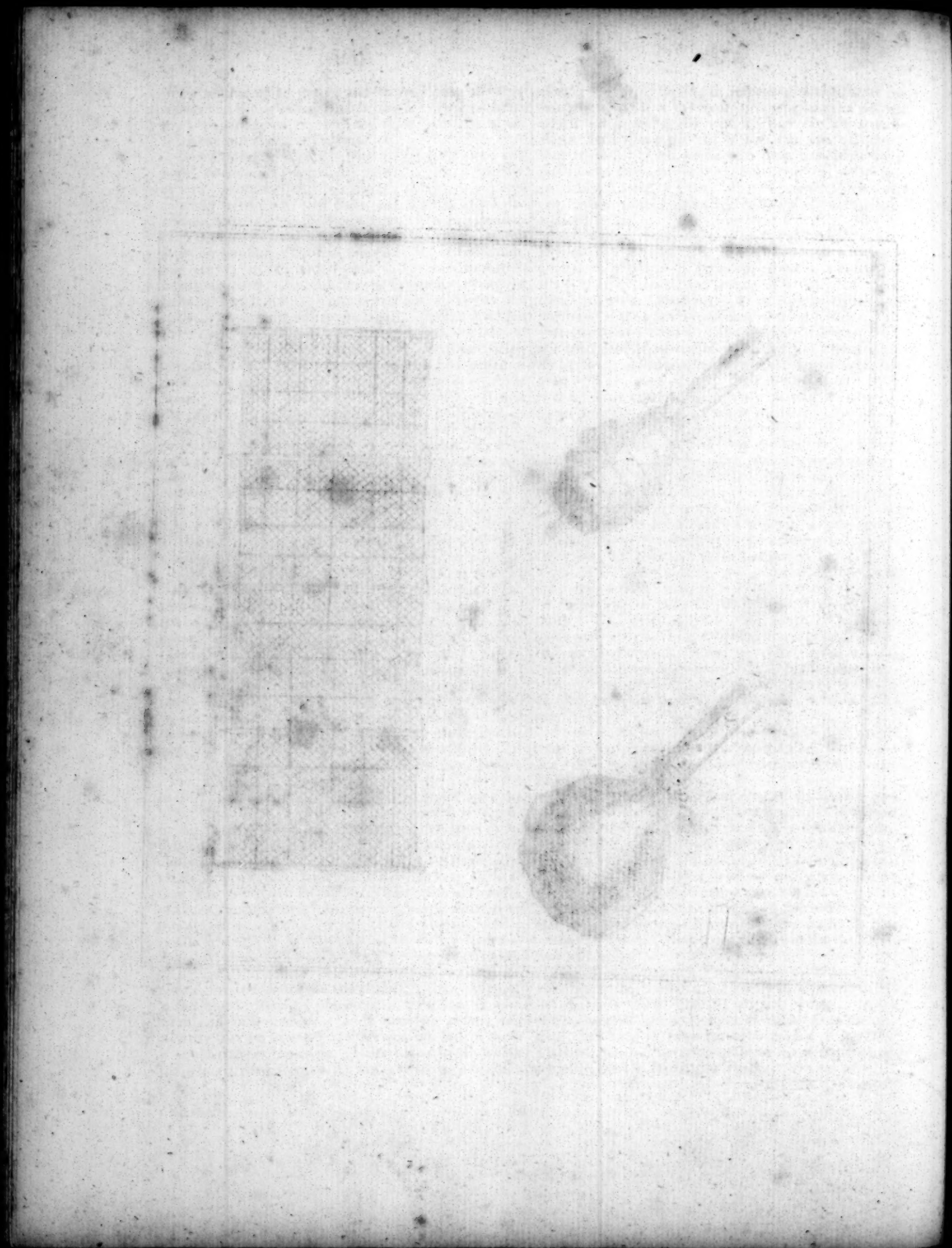
Plate XII.

Quails



The Net called a Hallier





BRACKEF's *ball.* Anniſeeds, carraway-ſeeds, and greater cardamoms, fine powder, of each an ounce; flour of brimſtone, two ounces; turmeric in fine powder, one ounce and a half; ſaffron in powder, two drachms; ſugar candy, four ounces; Spaniſh juice diſſolved in hyſſop water, two ounces; oil of anniſeed, half an ounce; liquorice powder, one ounce and a half; wheat flower, a ſufficient quantity to make it into a ſtiff paſte, by beating all the ingredients well in a marble, not a braſs mortar. This is the common cordial ball, and I believe deſervedly moſt in repute.

In the firſt place, care ought to be taken that the ſeeds be freſh and good, and by no means old ſhopkeepers, and that the oil of anniſeed be genuine, inſtead of one half oil of almonds; farther, that the maſs be kept in a bladder, or a gallipot, well ſecured from air or damp; and laſtly, out of the reach of two-legged depredators.

The *malt-maſh* from MARKHAM. Upon a peck of ground malt, pour a gallon and a half of boiling water, ſtir frequently; in about half an hour the liquor will be ſweet, and may be given to a horſe milk warm: this is very nouriſhing, either by itſelf, or mixed with gruel of rice, or oatmeal.

Alterative forms. The intent of alterants is gradually to remove chronic, or obſtructions of long ſtanding, which would not ſo readily give way to the briſk and tranſient effects of a purge; by thinning, purifying, and accelerating the motions of animal fluids. The chief conſiderations in the exhibition of this claſs of medicines are, that the more powerful ſpecies be not reſorted to, unleſs the humours of the animal be in a corrupted or depraved ſtate, that the doſes be very moderate and continued a conſiderable time, and that the powders be reduced as fine as poſſible; to a pinch of ſnuff. Large doſes purge, and the medicine paſſes too quickly; their frequency debilitates the ſtomach, and depreſſes the ſpirits; if the powder be groſs, inſtead of entering the lacteals and paſſing thence into the blood, it is carried through the inteſtines unchanged. I have ſeen rhubarb ejected from the bowels of an infant, the ſecond or third day, in the ſame crude ſtate as when given.

Mild Alterative. Flour of brimſtone, and cremor tartar, equal quantities; with theſe mix canella alba, a drachm of the latter to an ounce. The doſe, half an ounce to one ounce twice a day, either given in a ball with treacle, on an empty ſtomach (the moſt effectual way), or mixed with the corn, being firſt of all well ſtirred into a little wetted bran.

Add gum guaiacum finely powdered, and turmeric, equal quantities with the above. Mix well. This ſucceeds well with delicate conſtitutions.

Pound the fineſt antimony, that is, large, clear, and ſhining, like poliſhed ſteel, to an impalpable powder, mix with equal quantity of powdered guaiacum. Six drachms to one ounce per day.

Antimonial Æthiops, four to ſix drachms every night for a fortnight, then omit a week, afterwards repeat for another fortnight. It is made as follows: the beſt antimony as before, twelve ounces; crude mercury, ſixteen ounces; brimſtone, eight ounces; grind them together to an impalpable powder. This medicine has great effect in farcy, inveterate mange, or obſtinate dry coughs.

PURLIEU, all that ground near any foreſt, which being anciently made foreſt, is afterwards, by perambulations, ſeparated again from the ſame, and freed from that ſervitude which was formerly laid upon it.

PURLIEU-MAN, one that has land within the purlieu, and forty ſhillings a year freehold; upon which account he is allowed to hunt or courſe in his own purlieu, with certain limitations.

PURSE-NET, a net uſed for taking both hares and rabbits at certain times, and three or four dozen of them are ſufficient to lay over their holes: they are to be faſtened by tying ſtrings to ſticks thruſt into the earth, otherwiſe when the rabbits bolt out, they will run away and get out of the nets; but when the nets are fixed, and all things in order, there muſt be one or two to lie cloſe to ſee what game comes home, while, in the mean time, you beat the buſhes to force them homewards.

Another way to take rabbits with theſe nets is, at their coming out of their parraces; and they ſhould be ſecreted in this manner:

Firſt hunt them up and down to force them all in, then put in a ferret with a bell about her neck, which gives the rabbit notice of her coming, who, endeavouring to avoid her, will bolt out into the purſe-net, from whence you muſt immediately take the purſe-net before the ferret ſeizes her; and when the ferret comes out of the burrows, put her in again; but remember to cope her mouth, that is, tie her chaps with fine packthread, which will hinder her from ſeizing the rabbit and ſucking her blood.

PURSINESS IN HORSES, is a ſhortneſs of breath, either natural or accidental. The natural is when the horſe is cock throppled; for that his thropple or windpipe being ſo long, he is not able to draw his breath in and out with ſo much eaſe as other horſes do which are looſe throppled, becauſe the wind-pipe being too ſtraight, that ſhould convey the breath to the lungs, and vent it again at the noſe, makes him pant and fetch his breath ſhort; and in like manner when his pipe is filled with too much fat, or other phlegmatic ſtuff, which ſuffocates him, and makes his lungs labour the more.

Purſineſs accidental is ſometimes cauſed by a horſe's being hard ridden after a full ſtomach, or preſently after drinking, which cauſes phlegmatic humours to diſtil out of the head into the wind-pipe, and ſo fall upon the lungs, where they ſettle and congeal.

It alſo proceeds from heats and colds, &c. cauſes dulleſs and heavineſs in travelling, makes him ſweat much, and ready to fall down upon every ſtrain.

For the cure: pound anniſeeds, liquorice, and ſugar-candy, to a fine powder, and put four ſpoonfuls into a pint of white wine; brew them well, and mix with them half a pint of ſalad oil. Give this to the horſe ever after a travel, and a day before he ſets out on a journey. *See* ASTHMA AND BROKEN-WIND.

PUT; it is uſed for the breaking or managing of a horſe; as put your horſe to corvets, put him upon caprioles.

To put a horſe upon his haunches, is to make him bend them in galloping in the manage, or upon a ſtop. *See* HAUNCHES.

To put a horſe to the walk, trot, or gallop, is to make him walk, trot, or gallop.

PUTTOCK, a kind of long-winged kite, a bird of prey.

PYE-BALD HORSE, is one that has white ſpots upon a coat of another colour.

Thus there are pye-bald bays, pye-bald ſorrels, and pye-bald blacks, and ſo of the reſt.

PYROET; (in Horſemanſhip) ſome are of one tread or piſtes, ſome of two.

Thoſe of one tread are otherwiſe called, *Pirouettes de la tete a la queve*, which are entire and very narrow turns made by the horſe upon one tread, and almoſt in one time, in ſuch a manner that his head is placed where his tail was, without putting out his haunches.

To make horſes take this pyroet with more facility, they uſe in the manage to put them to five or ſix of them all running, without ſtirring off the ſpot.

In duels they are of uſe to gain the enemy's croup.

Pyroets of two piſtes or treads, are turns of two treads upon a ſmall compaſs of ground, almoſt of the length of the horſe.

QUAILS are the leaſt of all the birds of the gallinaceous kind. They have, however, the genius of the cock, and may be bred to fight like our game cocks. This was an old cuſtom among the Athenians, and is ſtill kept up in ſome parts of Italy, and in Aſia. Quails are birds of paſſage, ſome entirely quitting our iſland, others ſhifting their quarters from one country to another, dwelling in corn-fields, or meadows.—Quails begin to ſing in *April;* they make their neſts on the ground, and ſit in the month of *May*, at which time you muſt not diſturb them: you may know the hen by her ſlender neck, and that ſhe is not black under the chin, but of the colour of baked earth, and ſo up to the head, her breaſt and belly are almoſt white, her back and wings of a dark yellow colour; but the head, neck, back, tail, and wings of the cock, are almoſt black: his beak is alſo black and feet ſhining.

Quails are to be taken by calls, while they are in their wooing-times, which is from *April* till *Auguſt;* the quail will call at ſun-riſing, about nine o'clock, about twelve, about three in the afternoon, and at ſun-ſet. The notes of the cock differ much from the hen, ſo that you muſt be expert in both, if you intend to do any good in taking them; and when you hear the cock call, anſwer in the hen's note; and ſo on the contrary, anſwer the hen in the cock's note and they will both come to you, that you may caſt your net over and take them.

If it be a ſingle cock quail, he will come at the firſt call, but if he hath a hen with him, he will not forſake her: ſometimes you ſhall only hear one to anſwer your call, yet three or four will come to your net, ſo that you need not make too much haſte when you find one entangled, for ſome more may be taken in a ſhort time.

Quails are neat cleanly birds, and will not much run into dews or wet places, but chuſe rather to fly, that they may not dirty themſelves; you muſt therefore at ſuch times place yourſelf as near your nets as poſſible, and if by accident the quail paſſes by one end of the net, call her back again, and ſhe will ſoon come to your net.

The form of the call and how to make them, are deſcribed Plate XII. *viz.* the firſt A, is made of a ſmall leather purſe, about two fingers wide, and four long, in ſhape much like a pear; it muſt be ſtuffed half full of horſe-hair; place in the end a ſmall whiſtle or device, marked C, made of a bone of a cat's, hare's, or coney's leg, or rather of a wing of an old hern, which muſt be about three fingers long, and the end C, muſt be formed like a flagelet with a little ſoft wax; put alſo in a little to cloſe up the end B, which open a little with a pin, to cauſe it to give the clearer and more diſtinct ſound: faſten this pipe in your purſe, and then to make it ſpeak, hold it full in the palm of your left-hand, putting one of your fingers over the top of the wax; you muſt ſhake on the place marked A, with the hinder part of your right thumb, and ſo imitate the call of the hen-quail.

The form of the other quail-call, deſcribed Plate XII. Fig. 2. muſt be four fingers long, and above an inch thick, made of a piece of wire turned round, as if it was curled; it muſt be covered over with leather, and one end thereof cloſed up with a piece of flat wood, marked 2; about the middle you muſt have a ſmall thread, or leather ſtrap 7, wherewith you may hold it, ſo as to uſe it with one hand; and at the other end, place juſt ſuch a pipe as is deſcribed before in making up the firſt call.

Now for the calling with it, hold the ſtrap or piece of leather with your left-hand, cloſe by the piece of wood marked 2, and with your right-hand hold the pipe, juſt where it is joined to the flagelet, marked 3, and make the ſame noiſe as the hen does when ſhe calls the cock.

The net commonly uſed, is called a hallier, or bramble-net, which is managed as in the following figure.

If you know where the cock is alone, get within fifteen paces: ſuppoſe the pricked lines, marked with the letters A, B, C, D, E, F, G, H, where the borders of the corn-field, and that the quail ſhould be at the letter P, ſpread your net on the top of the ridge adjoining to the corn, and pitch your hallier, and ſo the bird running croſs the corn, may get into the net without perceiving it; then draw back into the bottom of the third or fourth line O, where you moſt ſtoop and hide yourſelf over-againſt the middle of the net, in order to call the quail.

QUARTER; to work from quarter to quarter, is to ride a horſe three times in end, upon the firſt of the four lines of a ſquare; then changing your hand, and riding him three times upon a ſecond; at the third line changing your hand, and ſo paſſing to the third and fourth, obſerving the ſame order.

A Falſe QUARTER, is when the hoof has a kind of cleft occaſioned by a horſe's caſting his quarter, and getting a new one, for then the horn beginning to grow, is uneven and ugly, as alſo bigger and ſofter than the reſt of the hoof; and ſuch feet ſhould be ſhod with half panton ſhoes; but if the cleft be conſiderable, and take

up

up a quarter part of the hoof, the horſe will not be ſerviceable, and is not worth buying.

QUARTER BEHIND, is when a horſe has the quarters of his hind feet ſtrong; that is to ſay, the horn thick, and ſo capable of admitting a good gripe by the nails.

When a horſe's quarters or feet are waſted and ſhrunk: for the cure: raze the whole foot with a red hot knife, making large razes of the depth of a crown piece, from the hair to the ſhoe: and avoiding the coronet, then apply a proper poultice, and charge the foot with a *remolade*. *See* REMOLADE POULTICE *for the hoof-bound*.

QUARTERS OF A SADDLE, are the pieces of leather, or ſtuff, made faſt to the lower part of the ſides of the ſaddle, and hanging down below the ſaddle.

QUARTERS OF A HORSE, fore-quarters, and hind-quarters; the fore-quarters are the ſhoulders and the fore-legs; the hind-quarters, are the hips and the legs behind.

QUARTERS OF A HORSE'S FOOT, are the ſides of the coffin, comprehended between the toe and the heel on one ſide, and the other of the foot: the inner-quarters are thoſe oppoſite to one another, facing from one foot to the other; thoſe are always weaker than the outſide quarters, which lie on the external ſides of the coffin.

QUARTER-CAST; a horſe is ſaid to caſt his quarters, when for any diſorder in his coffin, we are obliged to cut one of the quarters off the hooff, and when the hoof is thus cut, it grows and comes on a new.

QUITTOR-BONE, a hard round ſwelling upon the coronet, between a horſe's heel and the quarter, which moſt commonly grows on the inſide of the foot.

It is occaſioned many ways, ſometimes by ſome bruiſe, ſtub, prick of a nail, or the like, which being neglected, will impoſthumate, and break out about the hoof: now and then it comes from evil humours, which deſcend down to that part.

Quittor.

A quittor is an ulcer formed between the hair and the hoof, moſt frequently on the inſide quarter. They are cauſed by bruiſes, or by neglecting to clean away ſand, gravel, *&c.* that lodges in this part.

If it is ſuperficial, the cure is eaſily performed, by bathing the ſwelling once a day with ſpirit of wine, and applying to the ulcer a pledget of the ointment as directed for ſand-cracks, which ſee.

If the matter ſinks under the hoof, part of it muſt be taken off, or the ulcer can never be healed; and the ſucceſs in this caſe depends very much on the dexterity of the operator, and eaſe to the horſe, with which the piece of the hoof is divided and taken away.

Sometimes the matter runs under the quarter of the hoof, in which caſe the quarter muſt be removed: in this caſe, when the quarter grows again, it leaves a large ſeam called a falſe quarter, which weakens the foot and is never fairly cured.

If the coffin bone be affected with the matter, the opening muſt be properly enlarged; all that is decayed muſt be taken away with a knife, for that is the eaſieſt, and when it is uſed with ſkill, is the ſafeſt method; after which dreſs the wound with pledgets of the digeſtive ointment, with or without the precipitate, as directed for ſand-cracks, according as circumſtances may indicate.

If there is much pain or inflammation, a poultice may be applied over the dreſſing, including the whole of the diſeaſed part; but it ſhould be taken off and warmed again, three or four times a-day.

During the cure, the horſe ſhould run at liberty, and not be uſed for any kind of work. *See* FEET OF A HORSE.

RABBIT, a well-known animal of the hare-kind, with a ſhort tail, and naked ears. In the wild ſtate the colour of the fur is brown; but, in a tame ſtate, it varies to a black, pied, and quite white; the eyes are of a fine red. In their wild ſtate they inhabit the temperate and hot parts of *Europe*, and the hotteſt parts of *Aſia* and *Africa*. The female, or doe rabbit, goes with young thirty days, and then ſhe kindles; and if ſhe take not buck preſently ſhe loſes her month, or at leaſt a fornight, and often kills her young and eats them. In *England* they begin to breed at a year old, but in ſome places much ſooner, and they continue breeding very faſt from the time when they begin, four, five, ſix, or ſeven times a year being common with them. The female ſometimes brings eight young ones at a time. Suppoſing this to happen regularly for four years, the number of rabbits from a ſingle pair will amount to 1,274,840. By this account we might juſtly apprehend being overſtocked with theſe animals: but a great number of enemies prevents their increaſe; not only men, but hawks and beaſts of prey making dreadful havock among them. Notwithſtanding all theſe different enemies, however, we are told by PLINY and STRABO, that they once proved ſuch a nuiſance to the inhabitants of the *Balearic* iſlands, that they were obliged to implore the aſſiſtance of a military force from AUGUSTUS in order to exterminate them. The does cannot ſuckle their young till they have been at buck again; this therefore is to be done preſently, elſe there is a fortnight loſt of the time for the next brood, and the preſent brood alſo probably loſt. When the buck goes to the doe, he always firſt beats and ſtamps very hard with his feet, and when he has copulated with her he falls backward, and lies, as it were, in a trance; in this ſtate it is eaſy to take him, but he ſoon recovers from it. The buck-rabbit, like our boar-cats, will kill the young ones, if he can get at them; and the does in the warrens prevent this, by covering their ſtocks, or neſts, with gravel or earth, which they cloſe ſo artificially up with the hinder part of their bodies, that it is hard to find them out. They never ſuckle the young ones at any other time than early in the morning, and late at night, and always for eight or ten days, cloſe up the hole at the mouth of the neſt, in this careful manner when they go out. After this they begin to leave a ſmall opening, which they increaſe by degrees, till at length, when they are about three weeks old, the mouth of the whole is left wholly open, that

they may go out; for they are at that time grown big enough to take care of themſelves, and to feed on graſs. When the young ones come to the mouth of the hole, and to eat ſuch herbs as the mother brings to them, the father ſeems to know them: he takes them betwixt his paws, ſmooths their hair, and careſſes them with great fondneſs. People who keep rabbits tame for profit, breed them in hutches; but theſe muſt be kept very neat and clean, elſe they will be always ſubject to diſeaſes. Care muſt be taken alſo to keep the bucks and does apart till the latter have juſt kindled; then they are to be turned to the bucks again, and to remain till they ſhun and run from them. The general direction for chooſing of tame rabbits is, to pick the largeſt and faireſt; but the breeder ſhould remember, that the ſkins of the ſilver-haired ones ſell better than any other. The food of the tame rabbits may be cole-wort and cabbage leaves, carrots, parſnips, apple-rinds, green corn, and vetches, in the time of the year; alſo vine-leaves, graſs, fruits, oats and oatmeal, milk-thiſtles, ſow-thiſtles, and the like; but with theſe moiſt foods, they muſt always have a proportionable quantity of the dry foods, as hay, bread, oats, bran, and the like, otherwiſe they will grow pot-bellied, and die. Bran and grains mixed together have been alſo found to be very good food. In winter they will eat hay, oats, and chaff, and theſe may be given three times a day; but when they eat green things, it muſt be obſerved, that they are not to drink at all, for it would throw them into a dropſy. At all other times a very little drink ſerves their turn, but that muſt always be freſh. When any green herbs or graſs are cut for their food, care muſt be taken that there is no hemlock among it; for though they will eat that greedily among other things, when offered to them, yet it is ſudden poiſon to them. Rabbits are ſubject to two principal infirmities. Firſt, the rot, which is cauſed by giving them too large a quantity of greens, or from the giving them freſh gathered with the dew or rain hanging in drops upon them. It is exceſs of moiſture that always cauſes this diſeaſe; the greens therefore are always to be given dry, and a ſufficient quantity of hay, or other dry food, intermixed with them, to take up the abundant moiſture of their juices. On this account the very beſt food that can be given them is the ſhorteſt and ſweeteſt hay that can be got, of which one load will ſerve two hundred couples a year; and out of this ſtock of two hundred, two hundred may be eaten in the family, two hundred ſold to the markets, and a ſufficient number kept in caſe of accidents. The other general diſeaſe of theſe creatures is a ſort of madneſs: this may be known by their wallowing and tumbling about with their heels upwards, and hopping in an odd manner into their boxes. This diſtemper is ſuppoſed to be owing to the rankneſs of their feeding; and the general cure is the keeping them low, and giving them the prickly herb, called tare-thiſtle, to eat. The general computation of males and females is, that one buck-rabbit will ſerve for nine does; ſome allow ten to one buck; but thoſe who go beyond this always ſuffer for it in their breed. The teſticle of a rabbit is a very good object for examining the ſtructure of this part of generation in animals. The teſticles of various animals are variouſly compoſed, but all, in general, of veſſels variouſly rolled and folded together; and even the human teſticles are of the ſame ſort, being compoſed ſolely of rolls of veſſels, without any intermediate ſubſtance, only conſiſting of veſſels and their liquors.

The wild rabbits are to be taken either by ſmall cur dogs, or by ſpaniels, bred up to the ſport; and the place of hunting thoſe who ſtraggle from their burrows, is under cloſe hedges or buſhes, or among corn-fields and freſh paſtures. The owners courſe them with ſmall greyhounds; and, though they are ſeldom killed this way, yet they are driven back to their burrows, and are prevented from being a prey to others. The common method of taking them is by nets, called purſe-nets, and by ferrets. The ferret is ſent into the hole to force them out, and the purſe-net being ſpread over the hole, takes them as they come out. The ferrets mouths muſt be muffled, and then the rabbit gets no harm. For the more certain taking of them, it may not be improper to pitch up a hay-net or two, at a ſmall diſtance from the burrows that are intended to be hunted: thus very few of the number that are attempted will eſcape. The method by the dog, called the lurcher and tumbler, is alſo a very good one. The ferret ſometimes finds a rabbit aſleep, which ſhe ſurpriſes and kills, ſucks her blood, lies upon her, and ſleeps there; in which caſe you are obliged either to kill her, or wait till ſhe awakes, which will be often five or ſix hours; and therefore you muſt fire five or ſix times into the hole to awake her, upon which ſhe will come out; but muſt always let her ſleep an hour before you fire, or elſe the noiſe will ſignify nothing.

Some, who have no ferrets, ſmoke the rabbits out of their holes with burning brimſtone and orpiment. This certainly brings them out into the nets, but then it is a very troubleſome and offenſive method, and is very detrimental to the place, as no rabbit will for a long time afterwards come near the burrows, which have been fumed with theſe ſtinking ingredients.

Nets to take Rabbits and Hares.

Theſe nets muſt be made in the ſame manner as halliers, wherewith they take partridges. You have, repreſented in Plate VII, two ſimple nets made of meſhes lozenge-wiſe; you may make them of ſquare ones: the meſh ſhould be an inch and half broad, made of good ſtrong thread, and treble twiſted; but if you would make meſhes lozenge-wiſe, you muſt allow four-and-twenty, and three fathoms in length, and let them be well verged with long twiſted thread, and of a brown colour.

But the net with ſquare meſhes will do better, in which caſe they allow five feet in breadth or height, and three or four fathoms in length, according to the place; and in this no verging is required.

The firſt of theſe nets is to be placed in any path or track, in any coppice or furrow; for rabbits and hares always follow the moſt eaſy and beaten path: you muſt take notice how the wind ſits, that you may ſo ſet the net, that the creature and wind may come together; if the

the wind be ſide-ways, it may do well enough, but never if the wind blows over the net into the creature's face, for he will ſcent both it and you at a great diſtance, eſpecially a hare. Suppoſe A, B, to be the foot-path by which the game uſe to paſs, take three or four ſtaves, C, C, C, each four feet long, and about the thickneſs of one's thumb, ſharpened at the greater end, and a little crooked at the ſmaller; ſtick them in the ground, ſomewhat ſloping, as if ſo forced by the wind, in a ſtrait line, and at equal diſtances from each other; theſe muſt only hold the net from falling, but in a very ſlight manner, that if the game run againſt it, it may eaſily fall down, and ſo entangle him. Be ſure to hide yourſelf in ſome ditch or buſh, or behind ſome tree, as at D, for ſhould you be perceived, your expectation will be fruſtrated; nor ſhould you walk in the path-way by which you expect the game to come, for it will have ſome imperfect ſcent of you: when you perceive the game to be paſt you, fire a ſhot, flinging your hat at them, which will put them into ſuch a ſurprize, that they will ſpring on, and run juſt into the net; ſo you muſt be nimble to take them, leſt they break out and make their eſcape: yet this is not ſo good in windy as in calm weather.

The ſecond net is more uſed, and indeed more certain, but alſo more embarraſſing than the former. This net muſt be placed in the ſame manner as the former, in reſpect of the way and wind: obſerve the lines A, B, and C, D, denote the extremities of the path, and having two ſticks K, L, M, N, each about four feet long, and three times as thick as one's thumb, they muſt be cut exactly ſmooth at each end; and when you are upon the place, take the two ends of the packthreads which are on the ſame ſide with the net, tie them together on the ſtock of ſome tree, or a ſtake, within a foot and a half of the ground, but on the outſide of the path, as at the letter H. Do the ſame on the other ſide at I, and let the packthreads be ſo looſe in the middle, that they may bear the ſticks between them, which you are to adjuſt in the following manner:

Take the ſtick K, L, and put it on the edge of the way, at the cord or packthread L, which is at the bottom of the net; the other cord muſt be placed on the top of the ſtick at K, then go along behind the net, ſupport it with your hand, and place your ſecond ſtick M, N, juſt as you did the firſt; you ſhould endeavour to let your net lean a little towards the way by which you expect your game to come, for the game running fiercely againſt the net, will force the ſticks to give way, and ſo the nets fall upon him.

Theſe two nets are as uſeful for the taking wolves, foxes, badgers, and pole-cats, as conies and hares; but the following is only fit for the two laſt:

This net is not ſo troubleſome as either of the former, only it may be farther diſcerned; nevertheleſs it is excellent for rabbits, in ſuch foot-paths where you have ſometimes three or four couple running after one another, all which may be taken at once, for it does not fall like the two former.

You may obſerve what has been mentioned before, that the pointed lines, marked A, B, C, D, denote always the edges of the way; fix one of your ſticks at the letter E, and another in the middle F, and ſo do by the reſt; when the paſſage is quite ſhut up, withdraw to ſome buſh, or to ſome tree, as aforeſaid; but you muſt keep at a greater diſtance from this net than the other.

The right time to ſet theſe nets is at break of day, until half an hour before ſun-riſing; and from about half an hour before ſun-ſet till dark night.

RACE-HORSE, ſhould be ſomewhat long-bodied, nervous, of great mettle, very ſwift, and ſenſible of the ſpurs; he ſhould alſo be tractable, and no ways reſtive or ſkittiſh; his head ſhould be ſmall and ſlender, with wide noſtrils, and a large thropple.

He ſhould be of an *Engliſh* breed, or a *barb* of a little ſize, with a pretty large reach, his legs ſomewhat ſmall, but the back ſinews at a good diſtance from the bone; ſhort jointed, and neat ſhaped feet, for large feet are not at all fitted for this exerciſe.

He ſhould be at leaſt ſix years old, no horſe under that age having ſufficient ſtrength for a ſix mile courſe, without running the hazard of being over-ſtrained.

The next thing to be conſidered is, the limitation of time for preparing a horſe for a match; which is generally agreed by judicious horſemen, that (unleſs the match be for an extraordinay ſum) two months is ſufficient; but in this proper regard is to be had to the ſtate of the horſe's body.

If he be very fat, foul, or taken from graſs;

If he be extremely lean and poor;

If he be in good caſe, and has had moderate exerciſe.

For the firſt, you muſt take two months at leaſt, to bring him into order, for he will require much airing, great carefulneſs in heating, and diſcretion in ſcouring.

For the horſe that is very poor, get as long time as you can, and let his airings be moderate, and not before or after ſun-ſetting, feeding him liberally, but not ſo as to cloy him.

As for the horſe that is in good caſe, and which has had moderate exerciſe, a month or ſix weeks may be ſufficient.

You are alſo to conſider his particular conſtitution; if he be fat, and foul, yet of a free and waſting nature, apt quickly to conſume and loſe his fleſh; in this caſe you are not to have ſo ſtrict a hand, neither can he endure ſo violent exerciſe as if he were of a hardy diſpoſition, and would feed and be fat upon all meats and exerciſes.

Again, if he be in extreme poverty, and yet by nature very hardy, and apt ſoon to recover his fleſh, and to hold it out long; then by no means ſhould you have too tender a hand, nor forbear that exerciſe you would give a horſe of a nicer conſtitution, weak ſtomach, and free ſpirit.

As for the ordering a horſe for a race, *See* HUNTING-HORSE, MATCH, TRAINING A RACE-HORSE, *&c.*

RACK, a wooden frame made to hold hay or fodder for cattle.

RACK, a pace in which a horſe neither trots nor ambles, but ſhuffles as it were between.

The racking-pace is indeed much the ſame as the amble, only it is a ſwifter time and ſhorter tread.

RAF-

RAFFLE-NET, an implement to catch fiſh with both by night and day; but though the way of making this net is touched under the article Net-making, yet it will not be amiſs to give you the form of it. *See* Plate XIII.

Now as to its uſe: you muſt be provided with five or ſix poles of ſallow, or ſuch like wood, which is ſtrong withal, and each of nine or ten feet long, but more or leſs according to the depth of the water; ſharpen them at the great end, the better to fix them into the ground at the bottom of the water: you muſt alſo have a paring knife, in order to cut away all the weeds, roots, ſtumps, boughs, or the like, which are in or near the places where you deſign to pitch your net, for they muſt be removed out of the way.

Faſten one of your poles at either end of the net, at either of the two wings, *viz.* the cord below where the lead is, unto the bigger end of the pole; and the upper cord where the cork is, to the ſmaller end of the pole; then in caſe you have no bait, contrive to get ſome man on the oppoſite ſide of the river with a cord in his hand, one end whereof muſt be faſtened to one of the poles, which are fixed to the net, according to this figure of the pole.

The man having drawn over that wing, muſt force the great end A of the pole in the ſaid net into the ground, at the bottom of the water C; the like muſt be done with the other pole of the ſaid net, marked Z *h*, on the ſaid water, juſt over againſt the former.

Then he muſt throw over one end of the cord, which faſten to the wing of the ſaid net *y* C, when it is drawn over you muſt go along the whole length of the net. Your poles being ready faſtened at the two former, and ſtraining the cords of your net indifferently ſtiff, drive the two latter poles into the ground as you did the two firſt. Be ſure all be well and ſtrongly done, that the current may not force away your ſupporters; then with the ſaid long pole you may ſpread the graſs you before pared away all over the net, as well to ſecure it from the ſight of thieves, as to give a ſhade to the fiſh, for they covet ſhade, eſpecially in hot weather. The cord N, O, is your lock and key, for by it you are ſure no fiſh can eſcape that are in your net, you muſt therefore be careful to hide it: you may let the net ſtand a day and a night, and if the place be well ſtored with fiſh, you will hardly miſs them. But if you deſign to fiſh only by day, and not to let the net lie in the water, then after the net is planted, let a couple of men beat up and down with long poles, taking a good circumference, and beating towards it about the ſides of the water, every now and then thruſting their poles into the bottom of the water; and when you are minded to draw, be ſure in the firſt place to ſtrain in the lock and key N, O, and then having a cord at each wing of the net, from the other ſide draw them both at once gently towards you, and when they are near at hand, make what haſte you can; and thus you may make ſeveral ſets in one day.

There is a triple, or counter-meſh net, called by ſome a raffle, wherewith they alſo catch birds.

RAG, RAKE, } a company or herd of young colts.

RAGOT, is a horſe that has ſhort legs, a broad croup, and a ſtrong thick body; and differs from a gouſſaut in this, that the latter has more ſhoulders, and a thicker neck.

RAILS, Quails, Moor-Pouts, *&c.* are very good flights for hawks.

Their haunts are much the ſame with thoſe of the partridge, only the quail loves the wheat-fields moſt; the moor-pout the heath and foreſt grounds; and the rails love the long high graſs, where they may lie obſcure.

The way of finding them is like that of partridges, by the eye and ear, and haunt; but the chief way of all to find them out, is the call or pipe, to which they liſten with ſuch earneſtneſs, that you can no ſooner imitate their notes but they will anſwer them, and purſue the call with ſuch greedineſs, that they will play and ſkip about you, nay, run over you, eſpecially the quail.

The notes of the male and female differ very much, and therefore you muſt have them both at your command; and when you hear the male call, you muſt anſwer in the note of the female; when you hear the female call, you muſt anſwer in that of the male; and thus you will not fail to have them both come to you, who will approach and liſten till the net is caſt over them.

The way of taking theſe birds is alſo the ſame with that of the partridge, and they may be taken with nets or lime, either buſh, or rod, or engine, which you muſt ſtalk with; or by a ſetting-dog.

RAISE; to raiſe a horſe upon corvets, upon caprioles, upon peſades, is to make him work at corvets, caprioles, or peſades. Sometimes we ſay, raiſe the fore-hand of your horſe.

Raiſe is likewiſe uſed for placing a horſe's head right, and making him carry well; and hindering him from carrying low, or arming himſelf.

RAISING, (with Horſemen) is one of the three actions of a horſe's legs, the other two being the ſtay and the tread, which ſee in their proper places: the raiſing, or lifting up his leg, is good, if he perform it hardily, and with eaſe, not croſſing his legs nor carrying his feet too much out or in; and that he alſo bend his knees as much as is needful.

RAISTY, RESTIVE, } a term uſed in reſpect of a horſe, when he will go neither backwards nor forwards.

RAKE, a horſe rakes when being ſhoulder ſplait, or having ſtrained his four quarters, he goes ſo lame, that he drags one of his fore legs in a ſemicircle, which is more apparent when he trots than when he paces.

RAKE of Colts *See* Rag.

To RAKE a Horse, is to draw his ordure with one hand out of his fundament, when he is coſtive, or cannot dung: in doing this, the hand is to be anointed with ſalad oil, butter, or hogs greaſe.

RAMINGUE: a horſe called in *French* ramingue, is a reſtive ſort of horſe, that reſiſts the ſpurs, or cleaves to the ſpurs; that is, defends himſelf with malice againſt the ſpurs; ſometimes doubles the reins, and frequently yerks, to favour his diſobedience.

RAN-

RANGER, a ſworn officer of a foreſt or park, whoſe buſineſs it is to walk daily through his charge, to drive back the wild beaſts out of the purlieus, or diſforeſted places, into foreſted lands, and to preſent all treſpaſſes done in his bailiwick, at the next court held for the foreſt.

RANGIFER, a kind of ſtag, ſo called from his lofty horns, reſembling the branches of trees. The blood of this beaſt is accounted an excellent remedy for the ſcurvy, and his hoofs are eſteemed good for the cramp.

RASE: to raſe, or glance upon the ground, is to gallop near the ground, as our *Engliſh* horſes do.

RATS and MICE may be deſtroyed by the following methods. To the powder of arſenic, commonly called ratſbane, add freſh butter, made into a paſte with wheat or barley meal and honey; ſpread pieces of this mixture about thoſe parts of any houſe they moſt frequent; they will eagerly eat it, and, having done ſo, will drink to that exceſs as to kill themſelves. It ſhould be cautiouſly laid, to prevent young children getting at it; and the perſons who prepare it ſhould take particular care to clean their hands after it, as it is ſo ſtrong a poiſon. Unſlacked lime and oatmeal, mixed together, will deſtroy them. Oatmeal and powdered glaſs mixed, or you may add to them ſome freſh butter, and lay it near their haunts. Filings of iron, mixed with oatmeal, or with dough, or wheat flour, will have the ſame effect.

Fry a piece of ruſty bacon, and lay it on the middle of a board three feet ſquare, covering the board pretty thick with birdlime; only leaving ſome narrow paſſes on the board for the mice and rats to get at the bacon, in doing which, they will frequently get among the lime, and be caught. In Staffordſhire, it is cuſtomary to put birdlime about their holes, and, they running among it, it will ſtick to them ſo that they will not leave ſcratching till they kill themſelves. Or take oatmeal flour and coloquintida, make it into a paſte, and lay it in the places where they haunt. The ſeeds of wild cucumbers and black hellebore, mixed with ſuch food as they eat, will kill them. Or powdered hellebore, mixed with wheat or barley meal only, made into a ſtiff paſte with honey, and laid where they come, occaſions their preſent death; but let the perſon who mixes this preparation, be cautious in the uſe of it. When you have caught a rat or mouſe, cut or beat him ſeverely, and let him go, and he will make ſuch a crying noiſe, that his companions will leave the place. Some perſons flea off the ſkin of their heads, but this appears to be too cruel a practice.

Mix honey, metheglin, bitter almonds, and white hellebore, with wheat or barley flour, make the whole into a ſtrong paſte, throw it into their holes, and it kills them. Some deſtroy them by putting hemlock-ſeed into their holes. Or paſte made of bitter almonds, coloquintida, barley, wheat, or oat flour, with mead or honey, and put in their holes, or lay it where they frequent, and it will certainly deſtroy them. Or mix filings of iron or ſteel with a ſtiff paſte made of wheat or barley meal, and honey or mead; and they will be deſtroyed as ſurely as they eat of it. Some perſons ſay, that laying a ſkin of a deer in a room where they uſe to frequent will drive them away.

If hogs-lard be mixed with the brains of a weaſel, and diſtributed about a room in bits as big as a nut, they will not come thither. Or if oak-aſhes are put into their holes, they will run amongſt them, by which means they will get the ſcab, of which they will die. Or ſmallage ſeed, nigella, origanum: the fumes of any of theſe burnt will drive them out of their holes. Likewiſe lupines or green tamarinds burnt in the room will rid you of theſe vermin. Or cork cut into ſmall ſlices, and fried in ſuet, will certainly kill them, if it be laid where they come.

To kill Field Mice and Rats.

Go out in the dog-days, when the fields are tolerably bare, and find out their neſts or holes, which are in ſhape and ſize like an auger-hole, into which put hemlock-ſeed, or hellebore mixed with barley, and they will eat of it ſo as to deſtroy themſelves. To prevent your ſeed-corn from being deſtroyed by theſe vermin, ſteep it in bull's gall, and they will not touch it; or powder green glaſs, and mix with it as much copperas, beaten fine; add alſo as much honey as will make the whole into a paſte, and all the rats and mice will quit your fields.

Fill up their holes with laurel or roſe leaves; or uſe a mixture of black hellebore, bitter almonds, wild cucumber and henbane ſeed, beat together, and made into a paſte with barley-meal or oil. This will deſtroy them, if put into their holes, in fields or houſes. Theſe vermin are very fond of artichokes; to prevent the devouring them, therefore, wrap wool about the roots, and they will decamp; or they may be driven away by ſtrewing plenty of horſe-dung, or fig-tree aſhes. The beſt method to catch them in the field is, to fill an earthen pot half full of water, and put it in the ground, covered with a board that has a hole in the middle; then cover the board with ſtraw, haum, or ſuch like, under which the mice, taking ſhelter, creep to the hole, and will be drowned by falling into the water. Some perſons mix ſand with their corn, which deters them from burrowing in it, by falling into their ears.

But the beſt method that was ever made known to the public, ſeems to be a late diſcovery, called the HAMPSHIRE MILLER'S INFALLIBLE RAT-POWDER. The number of inſtances in which I have known it tried with ſucceſs, induces me to recommend it to all perſons who are infeſted by theſe vermin. It is a perfectly *ſafe* method, not lying in the way of children, and cats will not touch it. I have known above a hundred rats killed by it in the ſtables in one night.

To RATTLE (with ſportſmen) a term uſed of a goat, who is ſaid to rattle, when it cries, or makes a noiſe, through deſire of copulation.

RATTLING IN THE SHEATH, a term uſed of a horſe when he makes a noiſe in the ſkinny part of his yard.

RAT-TAILS, a moſt venomous diſeaſe in horſes, not unlike ſcratches, proceeding ſometimes from too much

much reſt, and the keeper's negligence in not rubbing and dreſſing them well. Alſo by reaſon of good keeping, without exerciſe, the blood, corrupting in his body, falls down into his legs, which cauſes the diſtemper.

Theſe rat-tails come upon the back ſinews, and may be known by the part being without hair, from two or three fingers breadth below the hams to the very paſtern-joint. They are ſometimes dry, and ſometimes moiſt, but always accompanied with cruſts and hard callofities, more raiſed than the reſt of the leg: when moiſt they ſend forth a ſharp humour.

Thoſe that are moiſt, uſually give way to drying applications, ſuch as the following:

Take four ounces of vinegar; of alum and white vitriol, each half an ounce; powder and mix them.

The dry and hard ſort, for the moſt part, give way to the ſtronger blue ointment; but if they do not yield to this, apply the following cauſtic ointment:

Take ſoft ſoap, two parts; quick-lime, one part; mix, and ſpread it juſt large enough to cover the ſwelling, but no farther; which muſt be prevented, or it will deſtroy more than is required.

Coach-horſes of a large ſize, that have their legs charged with fleſh, hair, &c. are moſt ſubject to this and ſuch like infirmities, which ſeldom happen to middle-ſized horſes.

The cure.---Ride the horſe well till he be warm, which will make the veins ſwell, and appear better; afterwards bleed him well on the fetlock veins, on both ſides, and next day waſh the ſores with warm water, and then clip away all the hair about it, and anoint the part aggrieved with the following ointment:

Take green copperas and verdigris of each four ounces; of common honey, half a pound; reduce the copperas and verdigris to a fine powder, and work them up with the honey to a due conſiſtence: uſe this ointment till the ſore be healed. Or take a quarter of a pound of *Flanders* oil of bays, a quarter of an ounce of oil of turpentine, and ſix drachms of quickſilver; mix the quickſilver and oil of turpentine well together, and then add the oil of bays, and ſtir all together till you cannot diſcover any of the particles of the quickſilver; with which anoint the horſe's legs twice a day; and when he comes from exerciſe let his legs be well waſhed with ſoap and warm water, and wiped dry.---*See* LEGS OF A HORSE.

RAT-TAIL: a horſe is ſo called when he has no hair upon his tail.

RAZE: a horſe razes, or has razed, that is, his corner teeth ceaſe to be hollow, ſo that the cavity where the black mark was is now filled up, and the tooth is even, ſmooth, and razed, or ſhaved, as it were, and the mark diſappears.

RE-AFFORESTED, is where a foreſt has been diſafforeſted, and again made foreſt, as the foreſt of *Dean* was by an act of Parliament, in the 20th of *King* Charles II.

REARING AN END (in Horſemanſhip) is when a horſe riſes ſo high before, as to endanger his coming over upon his rider; in that caſe you muſt give him the bridle, and leaning forwards with your whole weight, give him both your ſpurs as he is falling down; but ſpur him not as he is riſing, for that may cauſe him to come over upon you.

To RECHASE (among hunters) is to make homewards, to drive through the place where the game was firſt rouzed or ſtarted.

RECHASING, driving back the deer, or other beaſts, into the foreſts, chaſes, &c. from whence they had ſtrayed.

RECHEAT, a certain leſſon which huntſmen wind upon the horn when the hounds have loſt their game, to call them back from purſuing a counter ſcent.

RECLAIMING (in falconry) is the calling of a hawk, or bird of prey, back to the fiſt. The ſparhawk, gos-hawk, &c. are reclaimed with the voice; the falcon only by ſhaking the lure. So that the term luring, with regard to the falcon, is more proper than reclaiming. The partridge is alſo ſaid to reclaim her young ones, when ſhe calls them together upon their ſcattering too much from her.

RECLAIMING is alſo uſed for taming animals that are wild by nature.

RECORD (among fowlers). A bird is ſaid to record, when it begins to tune or ſing within itſelf; or to form its notes, or diſpoſe its organs for ſinging. The cock thruſh is diſtinguiſhed from the hen in recording; the firſt being more loud and frequent in it than the ſecond. Inſtances have been known of birds beginning to record when they were not a month old. This firſt eſſay does not ſeem to have the leaſt rudiments of the future ſong; but, as the bird grows older and ſtronger, one may perceive what the neſtling is aiming at. A young bird commonly continues to record for ten or eleven months, when he is able to execute every part of his ſong, which afterwards continues fixed, and is ſcarcely ever altered. The term record is probably derived from a muſical inſtrument, formerly uſed in England, called a recorder; which ſeems to have been a ſpecies of flute, and was probably uſed to teach young birds to pipe tunes. Lord BACON deſcribes this inſtrument (in his Second Century of Experiments) to have been ſtraight, to have had a ſmaller and greater bore, both above and below, to have required very little breath from the blower, and to have had what he calls a ſipple, or ſtopper.

To REDRESS A STAG, (hunting term) is to put him off his changes.

RED-SHANK, a bird that has red legs and feet.

RED-START, a bird ſo named from its red tail; the word *Stert*, in *Saxon*, ſignifying a tail. This bird is of a very ſullen temper; for if taken old, and not out of the neſt, he is very hard to be tamed; and will be ſo vexed ſometimes, as is hardly credible. It is a forerunner of the nightingale, and comes four or five times before he is generally heard, being of a cheerful ſpirit abroad, and having a very pretty melodious kind of whiſtling ſong. The cock is very fair, beautifully coloured, and exceedingly pleaſant to the eye. They breed thrice a year, viz. the latter end of *April*, in *May*, and in *June*; this being their ordinary courſe, except

except ſomebody ſpoils or touches their eggs, and then they may come later. They commonly build in holes of hollow trees, or under houſe-eves, and make their neſts with all ſorts of things, ſuch as dry graſs, ſmall roots of herbs, leaves, horſe-hair, wool, and ſuch as the place affords them. It is one of the ſhyeſt of birds; for if ſhe perceives you to mind her when ſhe is building, ſhe will forſake it; and if you touch an egg, ſhe never comes to her neſt any more; for you can ſcarcely go to it, but ſhe will immediately ſpy you; and if ſhe ſhould chance to have young ones, ſhe will either ſtarve them, or break their necks, by throwing them over the neſt; but if you bring them up young they change their tempers, and become tame and familiar to the keeper. They muſt be taken out of the neſt at about ten days old; for if left there too long, they are apt to learn ſome of the old bird's temper, and be very ſullen. They are fed with ſheep's heart and egg, minced very ſmall, and given at the end of a ſtick when they gape, about the quantity of three white peaſe; for if you clog their ſtomachs, they will preſently caſt their meat, and die in a ſhort time. When you perceive them to eat off the meat from the ſtick, cage them up, putting their meat into a pan, and about the ſides of the cage; not ceaſing, though they feed themſelves, to give them a bit or two three or four times a day; for they will hardly eat their fill for a long time, when they begin to feed alone. But when you have uſed your bird to eat five or ſix days without feeding, give him ſome paſte, and you will find him delight much therein. He may be kept in what cage you pleaſe, only let him be kept warm in the winter, and he will ſing in the night as well as the day.

REGARD, has a ſmall ſignification, when it is uſed in matters of foreſt, of which Mr. MANWOOD ſpeaks, "That the Eyre General Seſſions of the Foreſt, or Juſtice-Seat, is to be kept every third year, and of neceſſity, the regarder of the foreſt muſt firſt make his regard or view, which is to be done by the King's writ; and that regarder is to go through the whole foreſt, and every bailiwick, to ſee and inquire of the treſpaſſes therein.

REGARD OF THE FOREST, is alſo taken for that ground which is a part or parcel thereof.

REGARDER is an officer of the King's foreſt, who is ſworn to overſee or make the regard of it; as alſo to view and inquire of all offences or defaults, committed by the foreſters, &c. within the foreſt; and of all the concealments of them, and whether all other officers do execute their reſpective offices or not.

REINS, two long ſlips of leather faſtened on each ſide of a curb or ſnaffle, which the rider holds in his hand to keep his horſe in ſubjection.

REINS OR KIDNIES OF A HORSE. A horſe ought to have double reins, which is when he has them a little more elevated on each ſide of the back-bone, than upon it. The back ought to be ſtraight, and not hollow, becauſe ſuch ſaddle-backed horſes, though they are generally light, and have their necks raiſed high, yet they ſeldom have much ſtrength; and it is alſo difficult to fit the ſaddle that it does not gall them; beſides, they have exceedingly big bellies, which renders them very unſightly.

RELAY, (hunting term) the place where the dogs are ſet in readineſs to be caſt off when the game comes that way; alſo the kennel or cry of relay hounds. Relays are alſo ſometimes uſed for freſh horſes, or the ſtage where they are kept.

REMOLADE, is a leſs compounded honey charge for horſes. To prepare it, take three pints of lees of wine, and half a pound of hog's greaſe; boil them together for half an hour, till they be well incorporated one with another; add black honey, pitch, *Burgundy* pitch pounded, common turpentine, of each half a pound; ſtir theſe with the other over the fire till they are melted and well mixed; then add bole ammoniac, or bole of *Blois*, of each a quarter of a pound; take the veſſel off the fire, and ſtir it for a quarter of an hour longer. If the charge is not thick enough, it may be brought to a due conſiſtence with a little wheat flour; and if it be too thick, it may be thinned with wine, or lees of wine.

If to this charge an ounce of quickſilver be added, it will be little inferior to the red honey charge, in removing old griefs of the ſhoulders, legs, ſwaying of the back, and ſuch like infirmities.

You may firſt kill the quickſilver in a ſmall quantity of turpentine, and then incorporate it by ſtirring it with the other ingredients.

A Remolade for the Hoof-bound.

Take a pound of *Burgundy* pitch, half a pound of common turpentine, a quarter of a pound of olive oil, and thicken it well with a ſufficient quantity of wheat flour; charge the whole foot of the horſe with this remolade lukewarm, after you have applied the following poultice:

Take two parts of ſheep's dung, and one part of hen's dung, boil them with water and ſalt to the thickneſs of paſte; in another pot boil as many mallows as is proper to make a maſh, then add a convenient quantity of linſeed powdered, and boil it a little longer: afterwards pound them in a mortar with an eighth part of raw garlic, to a paſte; incorporate this with the following poultice, adding a little oil of lilies, and make a poultice to be applied very hot to the foot, and cover it with ſplents.

Renew the application five or ſix times, once in two days, ever obſerving to heat the following poultice, and to mix a little freſh with it.

A Remolade to diſſolve Kernels to the Glanders, before they come to a Hardneſs.

Reduce half a pound of linſeed to fine flour, mix it with a quart of ſtrong vinegar, and boil it over a clear but gentle fire, ſtirring it continually till it begins to grow thick, and then add ſix ounces of oil of lilies.

Another Remolade.

Mix half a pound of wheat flour with white wine, to the conſiſtence of gruel, and boil it over a gentle fire, ſtirring it without intermiſſion till the whole is united;

then having melted half a pound of *Burgundy* pitch, add half a pound of common turpentine, and incorporate all together: mix this with the gruel, moderately hot; take the veſſel off the fire, and add a pound of the oriental bole in powder, and make a charge.

This will bring down ſwellings of the legs occaſioned by blows, &c. This is to be applied hot, and repeated till the ſwellings be aſſuaged.

Another cheap Remolade for Swellings in the Legs occaſioned by Blows.

Chafe the part hard with ſtrong brandy, and then charge the whole leg with common honey. Renew the application once a day for ſix or ſeven days, waſhing the horſe in a river or pond twice every day.---*See* SWELLED LEGS.

Or, Take half a pint of good vinegar, mingled with half a pound of tallow, and an ounce of flour of brimſtone; or a mixture of common bole, honey, and water, for ſmall ſwellings.

RENETTE, is an inſtrument of poliſhed ſteel, with which they ſound a prick in a horſe's foot.

REPART, is to put a horſe on, or make him part a ſecond time.

REPOLON, is a demi-volt: the croupe is cloſed at five times.

The *Italians* are mightily fond of this ſort of menage. In making a demi-volt they ride their horſes ſhort, ſo as to embrace or take in leſs ground, and do not make way enough every time of the demi-volt.

REPOSTE, is the vindictive motion of a horſe, that anſwers the ſpur by the kick of his foot.

REPRISE, is a leſſon repeated, or a menage recommended; as, to give breath to a horſe upon the four corners of the volt, with only one repriſe; that is, all with one breath.

RESTIVE, or RESTY, a term applied to a horſe, &c. that ſtops or runs back, inſtead of advancing forward. In the menage, a reſtive horſe is a rebellious, refractory, ill-broken horſe, which only goes where it will, and when it will. A horſe of this ſort, who has been too much conſtrained and tyrannized over, ſhould be treated with the ſame lenity as a young colt. The ſpurs are improper to be uſed to either: inſtead of which a ſwitch ſhould be uſed, in order to drive him forward, as he will be thus leſs alarmed; becauſe the ſpurs ſurprize a horſe, abate his courage, and are more likely to make him reſtive, than to oblige him to go forward, if he refuſes to do ſo. There is likewiſe another method to puniſh a reſtive horſe, which is to make him go backward the moment he begins to reſiſt. Theſe corrections generally ſucceed; but the general rule is to puſh and carry your horſe forward, whenever he refuſes to advance, and continues in the ſame place, and defends himſelf either by turning or flinging his croupe on one ſide or the other; and for this purpoſe nothing is ſo efficacious as to puſh him forward vigorouſly.

RETAIN, is what we call hold in, ſpeaking of mares that conceive and hold after covering.

RETRAITS, or PRICKS. If a prick with a nail be neglected, it may occaſion a very dangerous ſore, and feſter ſo into the fleſh, that the foot cannot be ſaved without extreme difficulty; and therefore great care ought to be taken to avoid ſuch fatal conſequences.

When a farrier, in ſhoeing a horſe, perceives that he complains and ſhrinks at every blow upon the nail, it ſhould be immediately pulled out; and if the blood follow, there is no danger; only he muſt not drive another nail in the ſame place. Such an accident ſeldom makes a horſe halt, and he may be ridden immediately after it.

When a horſe halts immediately after he is ſhod, you may reaſonably conclude that ſome of the nails preſs the vein, or touch him in the quick.

To know where the grief lies, take up his lame foot, and knock with your ſhoeing-hammer at the ſound foot, (for ſome ſkittiſh horſes will lift up their foot when you touch it, though it be not pricked) that you may be the better able to judge whether the horſe be pricked when you touch the lame foot; then lift up the ſound foot, and knock upon the top of the clenches on the lame foot; then lift up the others; and if you perceive that he ſhrinks in when you ſtrike any of the nails, you may conclude him to be pricked in that place.

REVENUE, (in hunting) a fleſhy lump formed chiefly of a cluſter of whitiſh worms on the heads of deer, ſuppoſed to occaſion their caſting their horns, by gnawing them off the roots.

REVENUE, is alſo uſed for a new tail of a partridge, growing after the lap of the former. This is meaſured by fingers; and thus they ſay a partridge of two, three, or four fingers revenue.

RHEUM, is a flowing down of humours from the head upon the lower parts.

This diſtemper in horſes proceeds from cold, which makes his teeth looſe, and ſeem long, by the ſhrinking up of his gums; which will ſpoil his feeding, ſo that the meat will lie in a lump in his jaws.

RHEUMATIC EYES IN HORSES, are cauſed by a flux of humours diſtilling from the brain, and ſometimes by a blow. The ſigns are a continual watering of the eye, and his cloſe ſhutting the lids; and ſometimes attended with a little ſwelling.

In order for the cure of it, 1. Mix common bole ammoniac in powder, with vinegar, and the white of two eggs, till it be reduced to a kind of paſte; and apply it in the morning about the eye, for the compaſs of half an inch round, and bathe the eye with aqua vitæ: or,

Roaſt a new-laid egg hard, take off the ſhell, and cut it through the middle; and having taken out the yolk, put white vitriol, about the bigneſs of a nut, in the middle of it; join the two halves of the egg, and wrap all in a piece of clean fine linen; infuſe it in half a glaſs of roſe-water for the ſpace of ſix hours; then throw away the ſoaked egg, and put eight or ten drops of the water into the eyes of the horſe with a feather, morning and evening, and it will quickly complete the cure.

RHEUMATISM IN HORSES. It is defined a chronic local cold. Its ſeat is among the integuments of the muſcles, and, according to Dr. DARWIN, it conſiſts of inſpiſſated mucus left upon their faſcia, paining them when

when they move, and rub againſt it, like any extraneous material. It is probable the ſciatica, or hip-gout in horſes, is merely a rheumatiſm; at leaſt there is no danger in confounding them, ſince their cure will be the ſame. Dr. BRACKEN ſays, the rheumatiſm is properly a diſorder of the ſtrong and robuſt; by which he meant, that the vigorous muſcular contractions of ſuch, are moſt retentive of the morbid humour; but as ſimilar effects ſometimes happen from oppoſite cauſes, the diſeaſe may remain fixed in a weak habit, from deficient irritability, and inſufficient energy in the fibrous actions to caſt it off.

The grand difficulty lies in aſcertaining the diſeaſe, which is ſometimes vagous in different parts of the body; the ſhoulders are often affected; but that confirmed ſpecies particularly deſigned here, is uſually ſeated in and about the hip-joint and membranes adjacent. The horſe goes lame, from no viſible cauſe, but from a long continuance of the diſeaſe a waſting of the parts may enſue. The ſight and touch muſt determine the caſe, diſtinguiſhing it from lameneſs in the foot, the tendon, the hock or ſtifle, or from the pains occaſioned by initient ſpavins, or curbs. Could certainty be produced, no method would be attended with ſo probable a chance of a radical cure, as the actual cautery: holes being bored with a ſmall iron, very deep into the muſcular parts near the nervus ſciaticus, and the iſſues cloſe covered or bliſtered, left to diſcharge a conſiderable time. BRACKEN, who was equally a bold and judicious practitioner, recommends this to human patients, and records the cure of an inveterate ſciatica by this method, upon a jolly hoſteſs of Yorkſhire.

The Cure. Bleed. Rub the parts affected with ſpirits well camphorated, and oil, or ox-gall, mixed, twice a day, keeping on if poſſible a thick woolly bandage, well ſoaked in the mixture. A mercurial purge. A week after, the antimonial beer, to be continued three weeks or longer; the horſe kept conſtantly well clothed, with walking exerciſe twice a day, the weather permitting. Warm bath, with much friction of the parts; afterwards ſwimming in a river occaſionally.

But the only cure to be depended upon is a month's run at ſalt marſhes in the ſpring, and being continued abroad in ſome ſhady place till autumn; afterwards mercurial phyſic, and the beſt ſtable care.

Embrocation from BRACKEN. Nerve ointment, and ſoldiers ointment, two ounces; camphor, two drachms; oil of turpentine, and oil of Peter, each three drachms; ſpirits of ſal ammoniac, two drachms. Mix well, and keep in a pot ſtopped cloſe with a bladder. Shave off the hair, lather with ſoap, and when dry, anoint twice a day.

Turpentine drink, from the ſame. Take ætherial oil of turpentine from Apothecaries Hall, half an ounce; three yolks of eggs, three ounces of treacle; mix. Give this cold in half a pint of white wine, and repeat it every third day, for three turns. Cover with thick blankets. Moderate walking exerciſe.

Balls of guaiacum powdered, half an ounce; cinnabar of antimony, one ounce, mixed with cordial ball, half a pound, and worked up with ſyrup of the fine opening roots, are recommended. Bliſtering the part will ſometimes ſucceed. Do not the inhabitants of *Bath* and *Buxton* extend the uſe of their warm baths to their rheumatic horſes?

RIBS OF A HORSE, ſhould be circular and full, taking their compaſs from their very back-bone.

RICHES, (hunting term) a company of martens or ſables.

To RIDE, is uſed for learning the menage.

RIDGES, or WRINKLES OF A HORSE'S MOUTH, are the riſings of the fleſh in the roof of his mouth, which run acroſs from one ſide of the jaw to the other, like fleſhy ridges with interjacent furrows or ſinking cavities. It is upon the third or fourth ridge that we give a ſtroke with the horn, in order to blood a horſe whoſe mouth is over-heated.

RIDGELING, the male of any beaſt that has been but half cut.

Bloody RIFTS IN THE PALATE OF A HORSE. Firſt waſh the ſore place with vinegar and ſalt till it be raw, then rub the ſore place with honey and the powder of jet, and this will ſoon heal it: or elſe you may boil a handful of the inward bark of elm in a pint and a half of ſpring water till it is half waſted, and to this add a little honey, and uſe it warm two or three times a day.

RIG, a horſe that has had one of his ſtones cut out, and yet has got a colt.

RING-BONE IN A HORSE, is a hard, callous, or brawny ſwelling, growing on one of the tendons, between the coronet and paſtern-joint, and ſticks very faſt to the paſtern; ſo that if it be not taken care of betimes, it cauſes incurable lameneſs. Sometimes it appears no bigger than a bean, but afterwards riſes to half the bigneſs of a ſmall apple, ſpreading on both ſides the paſtern, with a little riſing between them.

This evil comes both naturally and accidentally, the firſt being from the ſtallion or mare; whereas the other proceeds from ſome blow of a horſe, or a ſtrain cauſed by curvetting, bounding turns, or races.

RING-TAIL, a kind of puttock or kite, having whitiſh feathers about the tail.

RING-WALK, a round walk made by hunters.

RIVET, is the extremity of the nail that reſts upon the horn when you ſhoe a horſe.

ROACH. This fiſh is not accounted a delicate fiſh, and is reckoned as ſimple as the carp is crafty.

They are more to be eſteemed which are found in rivers than in ponds, though thoſe that breed in ponds are much larger. It is a fiſh of no great reputation for his dainty taſte, and his ſpawn is accounted much better than any other part of him. And you may take notice, that as the carp is accounted the water-fox for his cunning, ſo the roach is accounted the water-ſheep, for his ſimplicity or fooliſhneſs. It is noted that the roach and dace recover ſtrength, and grow in ſeaſon a fortnight after ſpawning; the barbel and chub in a month, the trout in four months, and the ſalmon in the like time, if he gets into the ſea, and after into freſh water.

The ſeaſon for fiſhing for roach, in the *Thames*, begins about the latter end of *Auguſt*, and continues much longer than it is eithe leaſant or ſafe to fiſh. It

requires ſome ſkill to hit the time of taking them exactly; for all the ſummer long they live on the weed, which they do not forſake for the deeps till it becomes putrid; and that is ſooner or later, according as the ſeaſon is wet or dry: for you are to know, that much rain haſtens the rotting of the weed. I ſay it requires ſome ſkill to hit the time; for the fiſhermen who live in all the towns along the river, from *Chiſwick* to *Stains*, are about this time nightly upon the watch, as ſoon as the fiſh come out to ſweep them away with a drag-net; and our poor patient angler is left baiting the ground, and adjuſting his tackle, to catch thoſe very fiſh which, perhaps, the night before had been carried to *Billingſgate*.

There is a kind of baſtard ſmall roach, that breeds in ponds, with a very forked tail, and of a very ſmall ſize; which ſome ſay is bred by the bream and right roach. Some ponds are ſtored with theſe beyond belief; and knowing men, that know their difference, call them ruds. They differ from the true roach, as much as a herring from a pilchard; and this baſtard breed of roach is now ſcattered in many rivers, but not in the *Thames*, which affords the largeſt and fatteſt in this nation.

The roach is a leather-mouthed fiſh, and has a kind of ſaw-like teeth in his throat.

In *April*, the cad-bait, or worms, are proper baits for him; in ſummer, angle for him with ſmall white ſnails, or flies; but obſerve that they muſt be under water, for he will not bite at the top: or you may take a *May* fly, and with a plumb ſink it where you imagine roaches lie, whether in deep water, or near the poſts and piles of a bridge or wear. Having ſo done, do not haſtily, but gently pull up your fly; and if there be any roach there, you will ſee him purſue and take it near the ſurface of the water.

In autumn you may angle for him with paſte only, made of crumbs of fine white bread, moulded with a little water in your hands, till it becomes tough paſte; and colour it, but not very deep, with red lead; with which you may mix a little fine cotton, or lint, and a little butter. Theſe laſt are to make it hold on, and not waſh off your hook; with which you muſt fiſh with much circumſpection, leſt you loſe your bait. In winter you may alſo fiſh for roach with paſte; yet gentles are then better bait.

There is another excellent bait experienced to be very good, either for winter or ſummer, viz.

Take a handful of well-dried malt, and put it into a diſh of water; and having grubbed it and waſhed it between your hands till it be clean and free from huſks, pour that water from it, and put in a little freſh water; ſet it over a gentle fire, and let it boil till it is pretty ſoft; then pour the water from it, and with a ſharp knife turning the ſprout end of the corn upward, take off the back part of the huſk with the point of your knife, leaving a kind of inward huſk on the corn, otherwiſe you ſpoil all: then cut off a little of the ſprout end, that the white may appear, and alſo a very little of the other end, for the hook to enter.

When you make uſe of this bait, now and then caſt a little of it into the water; and if your hook be ſmall and good, you will find it an excellent bait either for roach or dace.

Another good bait is the young brood of waſps or bees, if you dip their heads in blood. As likewiſe the thick blood of a ſheep, being half dried on a trencher, and then cut into ſmall pieces, as will beſt ſuit your hook. A little ſalt will preſerve it from turning black, and make it the better.

Or you may take a handful or two of the largeſt and beſt wheat you can get, boil it in a little milk till it is ſoft, then fray it gently with honey and a little beaten ſaffron diſſolved in milk.

The way of fiſhing for roach at *London* Bridge, is after this manner. In the months of *June* and *July*, there are a great many of thoſe fiſh reſort to that place, where thoſe that make a trade of it take a ſtrong cord, at the end whereof is faſtened a three pound weight, and a foot above the lead is faſtened a packthread of twelve feet long to the cord; and to the packthread, at convenient diſtances, are faſtened a dozen ſtrong links of hair, with roach-hooks at the end, baited with a white ſnail, or perriwinkle; then holding the cord in their hands, the biting of the fiſh draws the packthread, and the packthread the cord, which is a ſignal to pull up; by which means they ſometimes draw up half a dozen, but ſeldom leſs than two or three at a draught.

ROAN. A roan horſe is one of a bay ſorrel, or black colour, with grey or white ſpots, interſperſed very thick. When this party-coloured coat is accompanied with a black head, and black extremities, he is called a roan with a blackmoor's head; and if the ſame mixture is predominant upon a deep ſorrel, it is called a claret roan.

ROBIN-REDBREAST. This bird is ſeen in winter upon the tops of houſes, and roofs, and upon all ſorts of old ruins, moſt commonly on that ſide that the ſun riſes and ſhines in the morning, or under ſome covert, where the cold and wind may not pinch him; and therefore his cage ſhould be lined.

It will ſing ſweetly. They breed in the ſpring, and commonly three times a year, viz. *April*, *May*, and *June*. They make their neſts with dry greeniſh moſs, and quilt them within with a little wood and hair. They have ſeldom above five young ones, and not under four; and build in ſome hay-houſe, or barn, or rick of hay. The young may be taken when they are about ten days old, and kept in a little baſket or box; but if they are let alone to lie too long in the neſt, they will be ſullen, and conſequently more troubleſome to bring up.

They muſt be fed with ſheep's heart and egg minced ſmall, as nightingales are; but a little at once, by reaſon of their bad digeſtion; for they are apt to throw up their meat again.

Be ſure they lie warm, eſpecially in the night. When you find them begin to be ſtrong, they may be caged, with ſome moſs put at the bottom of the cage, that they may hang warm; and put ſome meat into a pan or box, both of ſheep's heart and egg, and alſo paſte; and let them have ſome of the wood-lark's mixed meat by them.

To take a robin with a pit-fall is ſo well known, that I need ſay nothing of it; but with a trap-cage and a meal-

meal-worm many may ſometimes be taken in a day. Make choice of the bird you hear ſing, and to know whether it be a cock or a hen, you will find the breaſt of the cock more of a dark red than the hen's, and his red go up farther on the head.

This bird is incident to the cramp, and a giddineſs of the head, which makes him often fall off from his perch upon his back. It is preſent death, unleſs he has ſome help ſpeedily given him.

As for the cramp, the beſt remedy to prevent it, is to keep him warm and clean in his cage; that his feet be not clogged, whereby the joints are frequently eaten off, and the dung is ſo faſt bound on, that it makes his nails and feet rot off, which takes away the very life and ſpirit of the bird.

If you perceive him drooping and ſickly, give him three or four meal-worms and ſpiders, and it will refreſh him.

But for the giddineſs in the head, give him ſix or ſeven earwigs in a week, and he will never be troubled with it.

If you find he has little appetite to eat, give him now and then ſix or ſeven hog-lice; and let him never want water that is freſh two or three times a week.

And to make him cheerful and long-winded, give him once a week, in his water, a blade or two of ſaffron, and a ſlice of liquorice; which will advance his ſong or whiſtling much.

As to the extent of the bird's life, he ſeldom lives above ſeven years, he is ſo ſubject to the falling-ſickneſs, cramp, and oppreſſion of the ſtomach.

ROCK-FISHING, is to be followed only during the ſummer ſeaſon, and is chiefly practiſed in the ſouth and ſouth-weſt parts of *England*, and in ſome places in *Ireland*. In this laſt mentioned country, the rocks of *Dunleary*, which are eight or ten miles in length, and the neareſt part about five miles eaſtward of *Dublin*, are remarkable for this way of fiſhing.

When you fiſh for haddocks, your lines muſt be deep in the water, and your hook baited with two or three lob-worms. Your tackle muſt be ſtrong; for they ſtruggle hard, eſpecially if they have arrived to a tolerable growth.

As to the other part of ſea-fiſhing, namely, in a ſhip under ſail, your line ought to be ſixty fathoms in length, having a large hook affixed to it, and a piece of lead ſufficient to keep it as deep under water as poſſible. Your line muſt be made of hemp, and faſtened to the gunwale of the ſhip.

Cod, mackarel, and large haddock, are the fiſh uſually taken in this way, and ſometimes ling. The bait for them, except for the mackarel, is a piece of raw beef; and it is ſcarcely poſſible to feel either of them bite, even though you hold the line in your hand, by reaſon of the continual motion of the ſhip.

It is in vain to fiſh for mackarel, except when the ſhip lies-by, or is becalmed. A piece of ſcarlet cloth, hung upon a hook, is the firſt bait that is uſed; which never fails of anſwering the intent it was deſigned for. When you have taken a mackarel, cut a thin piece off from the tail, a little above the fin, and place it upon your hook, and you need not fear taking many of them. Thus one or two will ſerve for baits, till you are tired of the ſport. One mackarel, if dreſſed as ſoon as it is taken, will be preferable to a dozen that are brought to ſhore.

RODS (in angling). If you fiſh with more than one hair, or with a ſilk-worm gut, red deal is much the beſt, with hickery top, the whole rod being about four yards long; but for a ſmall fly, with ſingle hair, about three yards, very ſlender, the top of the yellowiſh hickory, with about nine inches of whalebone, and very near as long as the ſtock; the ſtock of white deal, not too ruſh-grown. Let it be thick at the bottom; which will prevent it from being top-heavy, and make it light in the hand.

A rod for ſalmon or large chub, the ſtock of red deal, or aſh, about ten feet, the top about ſeven, proportioned as above; the top of the beſt cane or hickery, but not too ſlender. Get it looped, and uſe a wheel.

The time to provide joints for your rods is near the winter ſolſtice: if poſſible, between the middle of *November* and *Chriſtmas-Day*, or at furtheſt between the end of *October* and the beginning of *January*; the ſap continuing to deſcend till towards *November*, but in the beginning of *January* it ceaſes. The ſtocks or buts ſhould be of ground hazle, ground aſh, or ground willow; though very good ones are ſometimes made of juniper, bay-tree, or elder ſhoots. Stocks ought not to be above two or three feet in length, and every joint beyond it ſhould grow gradually taper to the end of the top. Chooſe the wood that ſhoots directly from the ground, and not from any ſtump; becauſe theſe latter are never ſo exactly ſhaped.

Hazle tops are preferred to all others; and the next to them are yew, crab-tree, or black-thorn. Some indeed uſe the bamboo cane, and ſay it excels the beſt hazle.

But as the hazle is freeſt from knots, and of the fineſt natural ſhape, it ſeems fitteſt for the purpoſe. If they are a little warped, you may bring them ſtraight at a fire; and if they have any knots or excreſcences, you muſt take them off with a ſharp knife; though, if poſſible, avoid gathering ſuch as have either of theſe defects.

For the ground angle, eſpecially in muddy waters, the cane or reed is preferred for a ſtock. It ſhould be three yards and a half long, with a top of hazle, conſiſting of one, two, or three pieces, all of them together two yards, or one and a half long, at leaſt, including the whalebone: your rod will then be in all five yards and a half, or five yards long, at leaſt. The ſtiffneſs of the cane is helped by the length and ſtrength of the top; the pliant and regular bending of which preſerves the line.

Having got an hazle top, made of your deſired length, cut off five or ſix inches of the ſmall end; then piece neatly to the remaining part a ſmall piece of round, ſmooth, and taper whalebone, of five or ſix inches long, and whip it to the hazle with ſtrong ſilk, well rubbed with the beſt ſhoemaker's wax. At the top of the whalebone whip a narrow but ſtrong nooſe of hair, with waxed ſilk, to put your line to.

The beſt method to piece hazle and bone is, at firſt whip

whip the end of the hazle with thread, and bore it with a ſquare piece of iron of a ſuitable ſize; then make the thick end of the bone to go into it, after it has been dipped in pitch; then ſcrape off, file the hazle, and whip it neatly.

But the neateſt rod is thus made:---Get a white deal, or fir-board, thick, free from knots and frets, and ſeven or eight feet long. Let a dexterous joiner divide this with a ſaw into ſeveral breadths; then, with his planes, let him ſhoot them round, ſmooth, and ruſh-grown, or taper. One of theſe will be ſeven or eight feet long, proportioned to the fir, and alſo ruſh-grown. This hazle may conſiſt of two or three pieces of yew, about two feet long, made round, taper, and ſmooth; and to the yew a piece of ſmall, round, and ſmooth whalebone, five or ſix inches long. This will be a curious rod, if neatly worked; but be ſure that the deal for the bottom be ſtrong and round.

The rod for a fly, and running worm, in a clear water, muſt by no means be top-heavy, but very well mounted, and exactly proportionable, as well as ſlender and gentle at top; otherwiſe it will neither caſt well, ſtrike readily, nor ply and bend equally, which will very much endanger the line. Let both the hazle and yew tops be free and clear from knots; they will otherwiſe be often in danger of breaking.

As the whiteneſs of the fir will ſcare away fiſh, you muſt colour your ſtock in this manner: warm the fir at the fire, when finiſhed by the joiner, and then, with a feather dipped in aqua fortis, ſtroke it over, and chafe it into the wood, which it will make of a pure cinnamon colour.

It is found very uſeful to have rings, or eyes, made of fine wire, and placed upon your rod, from one end to the other, in ſuch a manner as that when you lay your eye to one, you may ſee through all the reſt. Through theſe rings your line muſt run, which will be kept in a due poſture by that means: and you muſt have a winch or wheel affixed to your rod, about a foot above the end; by which you may, if it ſhould be proper, give liberty to the fiſh.

Rods for roach, dace, tench, chub, bream, and carp, ſhould not have the top ſo gentle as thoſe for fly, but pretty ſtiff, ſo that the rod may exactly anſwer the motion of the hand: for roach and dace only nibble, and if you ſtrike not in that very moment, eſpecially if you fiſh with paſte, or any very tender bait, you miſs them: and a ſlender top folds and bends with a ſudden jerk.

In a time of drought, ſteep your rod in water a little before you begin to angle. Faſten to the top of your rod, or fin, with ſhoemaker's wax and ſilk, a nooſe or loop of hair, not large, but ſtrong and very ſtraight, to fix your line to.

Your top for the running line muſt be always gentle, that the fiſh may the more inſenſibly run away with the bait, and not be ſcared with the ſtiffneſs of the tackle.

To preſerve hazles, whether tops or ſtocks, from being worm-eaten or rotten, twice or thrice in a year, as you think fit, rub them all over with ſallad-oil, tallow, or ſweet butter, chafing it in with your hand; but above all, keep them dry, to prevent their rotting, and not too near the fire, leſt they grow brittle: and in the ſpring, before you begin to angle, ſteep them at leaſt twelve hours in water. *See* ANGLING, FISHING, *&c.*

ROD, is a ſwitch carried by the horſeman in his right hand, partly to repreſent a ſword, and partly to conduct the horſe, and ſecond the efforts of the hand and heels.

ROD-NET, a kind of net for catching blackbirds and woodcocks.

RODGE, a ſort of water fowl, ſomewhat like a duck, but of a leſſer ſize.

ROE, the ſpawn or ſeed of fiſh. That of the male fiſhes is uſually diſtinguiſhed by the ſoft roe, or melt; and that of the female by the hard roe, or ſpawn.

ROEBUCK, is called a hind the firſt year, a gyrle the ſecond, a hemuſe the third, a roebuck the fourth.

ROOKERY, a place where rooks build their neſts, breed their young, and uſually inhabit and reſt in the night, after they have been abroad feeding in the day. Rooks may be taken the ſame way as pigeons. They are very deſtructive of corn, eſpecially of wheat, though they clear the ground of caterpillars, that do incredible damage by eating the roots of the corn, and on this account may be conſidered the farmers friends. They ſearch out the lands when it is ſown, and watching them more carefully than the owners, they perceive when the ſeed firſt begins to ſhoot up its little blade: as this is their time of feeding on it, they will not be at the pains of ſearching for it at random in the ſown land, for that is more trouble than ſo ſmall a grain will requite them for; but, as ſoon as theſe blades appear, they are directed, without loſs of time or pains by them, to the places where the grain lies, and in three or four days time they will root up ſuch vaſt quantities of them, that a good crop is often thus deſtroyed in embryo. After a few days, the wheat beginning to grow, its blades appear green above ground, and then the time of danger from theſe birds is over; for then the ſeeds are ſo far robbed of their mealy matter, that they are of no value to that bird, and it will no longer give itſelf the trouble to deſtroy them.

The beſt remedy the farmer has, is to watch well the time of the corn's being in the condition to ſeed upon it; and as this laſts only a few days, he ſhould keep a boy conſtantly in pay to watch the field from day-break till the duſk of the evening. Every time they ſettle upon the ground, or fly over it, the boy is to hollow, and throw up a dead rook into the air: this will always make them riſe, and by degrees they will be ſo tired of this conſtant diſturbance, that they will ſeek out other places of preying, and will leave the ground even before the time of the corn's being unfit for them. The reaſon of their riſing at the toſſing up of their dead fellow-creatures is, that they are a bird extremely apprehenſive of danger, and they are always alarmed when one of their comrades riſes. They take this for the riſing of an out-bird, and all fly off at the ſignal.

ROPE, CORD, or STRAP, is a great ſtrap tied round a pillar, to which a horſe is faſtened when we begin to quicken and ſupple him, and teach him to fly from the ſhambrier, and not to gallop falſe. In menages that have

have no pillar, a man ſtands in the center of the ground holding the end of the rope.

ROPES OF TWO PILLARS, are the ropes or reins of a caveſſon, uſed to a horſe that works between two pillars.

ROT, a diſorder which threatens ſheep before it falls among them; to prevent which obſerve the following:

About Bartholomew-tide, or the beginning of *September*, go out in the morning as ſoon as the ſun begins to ſhine out clear, and taſte the dew upon the graſs of your paſture; if it be bitter, brackiſh, and many long gliſtening ſtakes, or ſtreaks, like the weaving of ſpiders, lie on it, and ſo continue for ſome time, it prognoſticates a rot or a very unhealthy winter for ſheep, eſpecially in low wet grounds, or if they feed amongſt graſs that has not been mowed. To prevent the rot taking hold of them, rub their mouths once a week with ſalt called andracci; diſſolve it in ſharp vinegar, and fright them early about the paſtures with a dog till they be well heated, for this beats the mildews from the graſs, and other dews that are hurtful to them in feeding, alſo the nettles, webs, and flaſks, which otherwiſe they might lick up, for thoſe contribute much to the rot.

The beſt graſs for ſheep is that amongſt which grows a good quantity of melilot, ſelf-heal, clover, cinquefoil, broom, white henbane, or knot-graſs.

ROUND, or VOLT, is a circular tread.

To cut a ROUND. *See* CUT.

To ROUND A HORSE, OR MAKE HIM ROUND, is a general expreſſion for all ſorts of menage upon rounds; ſo that to round a horſe upon trot, gallop, or otherwiſe, is to make him carry his ſhoulders and his haunches compactly or roundly, upon a greater or ſmaller circle, without traverſing or bearing to a ſide.

To round your horſe the better, make uſe of a cord or ſtrap, held in the center, till he has acquired the habit of rounding and making of points.

ROUSSIN, is a ſtrong well knit, well ſtowed horſe, which are commonly carried into *France* from *Germany* and *Holland;* though, it is true, *France* itſelf produces ſome ſuch.

ROWEL, the goad or pricks of a ſpur, ſhaped like the figure of a ſtar.

ROWELLING OF HORSES, firſt, caſt the horſe upon ſome ſoft place, make a little ſlit through the ſkin, three or four inches below the part aggrieved; but let it be no bigger than that you can thruſt a ſwan's quill into it; then raiſe the ſkin from the fleſh a little with the coronet, and put in the quill, blowing the ſkin from the fleſh upwards, even to the top, and all over the ſhoulder; ſtop the hole with your finger and thumb, and beat the place blown all over with a hazle ſtick, and with your hand diſperſe the wind into every part, and let it go.

When this is done, take horſe hair, or red ſarſenet, half the thickneſs of your little finger, and having put it into a rowelling needle of ſeven or eight inches in length, thruſt it in at the firſt hole, and put it upwards, and draw it out above at leaſt ſix inches; and if you will, you may put it in another above that, and then tie the two ends of the rowel together; move and draw them to and fro in the ſkin; but before you put them in you muſt anoint them with ſweet butter and hog's greaſe, and every day after likewiſe, for that will make the corruption run out the better.

Mr. LAWRENCE, in his excellent treatiſe, ſays, the *French* call rowels *ſentinels*, and are intended to anſwer the ſame end as iſſues in the human body, namely, to evacuate ſuperabundant juices, or to cauſe revulſion, or derivation from any particular part, by making a general drain or draught. Rowels have a gradual, yet effectual operation, and are of excellent uſe in all caſes of ſtagnated or impeded humours, in recent lamenefſes and ſtrains, attended with inflammation; in ſudden ſwellings from blows, where extravaſation, or burſting of the fluids from their veſſels, has taken place.—BRACKEN has queſtioned their good effects on lean and hide-bound horſes, and in the greaſe; but experience is ſurely againſt him in the latter caſe, ſince rowels have uſually the effect of ſtopping, at leaſt diminiſhing, the greaſy diſcharge in the legs; and hide-bound and unthrifty horſes are often ſuddenly amended by the uſe of this drain, for which, conſidering their emaciated appearance, it ſeems difficult to aſſign a reaſon. It is ſcarce worth while to deſcribe the operation of making a rowel, it is a thing of ſuch common uſe; and every farrier who has made one, in courſe, ſuppoſes he has opened a door for the exit of foul humours excluſively, reaſoning in that ſtraight forward way, that it is a pity it ſhould ever deceive a man, to wit, that a diſcharge of ſuch ill ſavour, muſt needs be of a malignant nature.

The parts proper for their inſertion, are the cheſt, ſhoulders, belly, hips, inſide or outſide of the thighs; but Mr. CLARKE objects to their being made between the jaw-bones, on account of the conſtant motion of the jaws. A horſe will bear the diſcharge of a conſiderable number of them at once, which, indeed, in urgent caſes, is abſolutely neceſſary, in order to derive any conſiderable or ſpeedy benefit from the practice. GIBSON gives a very neceſſary caution againſt rowelling horſes of a dropſical habit, with poor and watery blood, and when the ſwellings appear upon their legs, belly, and ſheath; in ſuch caſe, the iſſues never come to a good digeſtion, inſtead of which a large flux of ſerous humours will enſue, and it may be difficult to prevent a mortification. Schirrus and cancer alſo, may be produced, from inſerting rowels near glandulous parts, or when the muſcular fleſh may have been wounded in the operation, or bruiſed by the continual preſſure of the hard leather. Should a rowel have been injudiciouſly exhibited in a diſeaſe, and fail to diſcharge, except a little thin bloody ichor, there is danger, that inſtead of ſuppurating properly, it may ſoon turn gangrenous; in this caſe Mr. CLARKE adviſes to take out the leather inſtantly, and foment the parts with a ſtrong infuſion of chamomile, and to poultice repeatedly, if the ſituation will admit of it, alſo to bathe with ſpirits of wine and turpentine, defending the wound from the external air; if needful, two or three ounces of *Peruvian* bark per day, may be given, either by drink or ball. The inciſion for a rowel ſhould

be

be about three-eighths of an inch long, and in ſeparating the ſkin from the fleſh, the latter ought not to be wounded or bruiſed; the leather muſt be very thin, not ſtiff or hard, nor ſo large as formerly in uſe; the ſhape and ſize of a crown piece is the moſt proper, having a large round hole in the middle; cover the rowel with lint or tow, dipped in digeſtive ointment, and after its introduction, cloſe the orifice with a pledget of tow dipped in the ſame. If the operation ſucceed, the ſurrounding parts ſoon ſwell, and a plentiful diſcharge of ſimple humour enſues; which in two or three days will be changed into a thick white pus or matter. The time is uncertain for the continuance of the diſcharge; but it muſt not be continued too long, or the leather will be obliged to be cut out, and a very unſightly induration or lump may remain. *See* SETON AND FARRIERY.

ROYAL, (among Hunters) one of the ſtarts of a ſtag's head.

RUBICAN COLOUR OF A HORSE, is bay, ſorrel, or black, with a little grey, or white upon the flanks, but ſo that this grey or white is not predominant there.

RULES FOR BUYING HORSES. What has been treated of under the name of draught-horſe, concerning buying, ſhape, uſage, *&c.* being confined, in a manner, wholly to thoſe employed for plough and cart, theſe rules are more general and comprehenſive; and many things under this head are of great uſe, and therefore muſt be particularized: as,

Election; which is the end for which a man buys, and is a thing only ſhut up in his breaſt.

Breed; which muſt be either taken from faithful report, a man's own knowledge, or from ſome known and certain characters, by which one ſtrain, or one country, is diſtinguiſhed from another.

As the *Neapolitan* horſe is known by his hawk noſe, the *Spaniſh* by his ſmall limbs, the *Barbary* by his fine head and deep hoof, the *Dutch* by the roughneſs of his legs, and the *Engliſh* by his general ſtrong knitting together; and ſo of divers others.

The colour; and though there are none exempt from goodneſs, yet ſome are accounted better than others, as the dapple grey for beauty; the brown bay for ſervice; the black, with ſilver hair, for courage; and the liard, and true mixed roan, for countenance: as for the ſorrel, the black without white, and the unchangeable iron-grey, they are reckoned choleric; the bright bay, flea-bitten; the black with white marks are ſanguiniſts; the black, white, yellow, dun, kite-glued, and the pye-bald, are phlegmatic; and the cheſnut, the mouſe-dun, the red bay, and the blue grey, are melancholy.

For pace in general, with either trot, amble, rack, or gallop; it muſt be referred to the end for which a horſe is bought, particularly if it be for the war, running, hunting, or for a man's own pleaſure, the trot is moſt tolerable; and this motion is known by a croſs moving of the horſe's limbs, as when the fore-leg, or near hinder-leg, or the near fore-leg and the fore hinder-leg, move and go forward in one inſtant; and in this motion, the nearer the horſe takes his limbs from the ground, the opener, the evener, and the ſhorter is his pace; for to take up his feet ſlovenly, ſhews ſtumbling and lameneſs; to tread narrow or cloſe, ſhews interfering or falling; to ſtep uneven, indicates toil and wearineſs; and to tread ſtrong, ſhews over-reaching.

Ambling; which is choſen for eaſe, great men's ſeats, or long travel, is a motion contrary to trotting; for now both the feet of one ſide muſt move equally together, that is, the far fore-leg and the far hinder-leg, and the near fore-leg and the near hinder-leg; and this motion muſt be juſt, ſmooth, large, and nimble; for to tread falſe takes away all eaſe, to tread ſhort rids no ground, to tread rough ſhews rolling, and to tread ſlow ſhews a falſe pace, (which never continues), as alſo lameneſs.

Racking; a pace required for buck-hunting, galloping on the highway, poſt, hackney, or the like: and it is the ſame motion as ambling, only it is a ſwifter time, and a ſhorter tread; and though it rids not ſo much ground, yet it is a little eaſier.

Galloping is the laſt, and muſt be joined to all the other paces; and this every trotting and racking-horſe naturally does, but the ambler is a little unapt to it, becauſe the motions are both one, ſo that being put to a greater ſwiftneſs or pace than formerly he had been acquainted with, he manages his legs confuſedly and diſorderly, but being trained gently, and made to underſtand the motion, he will as well undertake this as any trotting horſe whatever. Now in a good gallop, you muſt obſerve, firſt, that the horſe takes up his feet nimbly from the ground, but does not raiſe them high, that he neither rolls not beats himſelf, that ſtretches out his fore-legs, follows nimbly with the others, and neither cuts under his knee (which is called the ſwiſh-cut) nor croſſes, nor claps one foot on another, and ever leads with his fore-foot, and not with the near; ſuch a one is ſaid ever to gallop comely and true, and he is fitteſt for ſpeed, or any ſwift employment; but if he gallops round, and raiſes his fore-feet, he is then ſaid to gallop ſtrongly, and not ſwiftly, and is fitteſt for the great ſaddle, the wars, and ſtrong encounters; if he gallops ſlow, yet ſure, he will ſerve for the high road; but if he labours his feet confuſedly, and gallops painfully, then the buyer may conclude he is not good for galloping ſervice; beſides, it betrays ſome hidden lameneſs in him.

His nature; which muſt be referred to the end for which a horſe is bought; ever obſerving, that the biggeſt are fitteſt for ſtrong occaſions and great burdens, ſtrong draughts, and double carriage; the middle ſize for pleaſure and general employments; and the leaſt for eaſe, ſweet walks, and ſummer hacknies. But to be yet ſomething more particular as to the rule of choice, it is contained in the diſcovery of natural deformities, accidental outward ſorances, or inward hidden miſchiefs, which are ſo many and ſo infinite, that it is very tedious, though exceeding neceſſary, to explain them. Wherefore you are, upon this occaſion, to

Obſerve how a horſe ſtands to view, that is, ſeeing him ſtark naked before, and placing yourſelf before his face, take a ſtrict view of his countenance, and the chear-

chearfulneſs thereof, that being an excellent glaſs wherein to diſcern his goodneſs and perfection.

On ordering him out, let no one be the laſt in the ſtable but yourſelf; you ſhould alſo, if poſſible, be the firſt in, leſt the owner, or ſome of his quick emiſſaries, take an opportunity to fig him; a practiſe common among dealers, in order to make the tail ſhew as if carried very high, when, in reality, the day after he will in appearance be five pounds worſe.

His ears; which if they are ſmall, thin, ſhort, pricked, and moving, or if they be long, be well ſet on, and well carried, it is a mark of beauty, goodneſs, and mettle; but if they are thick, laved, or lolling, wide ſet, and unmoving, then they are ſigns of dulineſs, doggedneſs, and ill-nature.

His face; which, if wan, his forehead ſwelling outward, no mark or feather in his face ſet high as above his eyes, or at the top of his eyes; if he has a white ſtar, or white ratch of an indifferent ſize, and placed even, or a white ſnip on his noſe or lip, they are all marks of beauty and goodneſs: but if his face be flat, cloudy, or ſcouling; his forehead flat as a trencher, which is called mare-raced, for the mark in his forehead ſtands low, as under his eyes; if his ſtar or ratch ſtand awry, or in an ill poſture, or inſtead of a ſnip, his noſe be raw or unhairy, or his face generally bald, they all denote deformity.

The proper time to examine his eyes, is in a dark ſtable, with a candle, or rather in the day-time when he is led from the ſtall; cauſe the man who leads him to ſtop at the ſtable-door, juſt as his head peeps out, and all his body ſtill within. Never look at the eye full; but let your obſervations be oblique. If the white of the eye appears reddiſh at the bottom, or of a colour like a withered leaf, I would not adviſe you to purchaſe him. A moon-eyed horſe is known by his weeping, and by keeping his eyes almoſt ſhut at the beginning of the diſtemper: as the moon changes, he gradually recovers his ſight, and in a fortnight or three weeks ſees as well as before he had the diſorder. Dealers, when they have ſuch a horſe to ſell, at the time of his weeping, always tell you that he has got a bit of ſtraw or hay in his eye, or that he has received ſome blow; they alſo take care to wipe away the humour, to prevent its being ſeen; but a man ſhould truſt only himſelf in buying of horſes, and above all be very exact in examining the eyes. In this he muſt have regard to time and place where he makes the examination. Bad eyes may appear good in winter, when ſnow is upon the ground; and often good ones appear bad, according to the poſition of the horſe. Never examine a horſe's eyes by the ſide of a white wall, where the dealers always chooſe to ſhew one that is moon-eyed.

The moon-eyed horſe has always one eye bigger than the other, and above his lids you may generally diſcover wrinkles or circles.

If you obſerve a fleſhy excreſcence that proceeds from the corner of the eye, and covers a part of the pupil, and is in ſhape almoſt like the beard of an oyſter, though ſeemingly a matter of no great conſequence, yet it is what I call a whitlow in the eye, and if ſuffered to grow, it draws away a part of the nouriſhment of the eye, and ſometimes occaſions a total privation of ſight.

His eyes; which, if round, big, black, ſhining, ſtarting or ſtaring from his head; if the black of the eye fills the pit, or outward circumference, that in the moving, very little, if any, of the white appears, they are all ſigns of beauty and goodneſs. But if his eyes are uneven, and of a wrinkled proportion, or if they be ſmall, which in horſemanſhip is called pig-eyed, both are uncomely ſigns of weakneſs: if they be red and fiery, beware of moon-eyes, which is next door to blindneſs: if white and walled, it betrays a weak, ſlight, and unneceſſary ſtarting, or finding of baggards: if with white ſpecks, take heed of the pearl, pin, and web: if they water or appear bloody, it indicates bruiſes: and if any matter, it ſhews old age, and over-riding, feſtering, rheums, or violent ſtrains: if they look dead or hollow, or much ſunk, beware of blindneſs at the beſt: if the black does not fill the pit, but that the white is always appearing, or if in the moving the white and black be ſeen in equal quantity, it is a ſign of weakneſs, and a dogged diſpoſition in him.

Cheeks and chaps: upon the handling whereof, if you find the bones lean and thin, the ſpace wide between them, and the thropple or windpipe as big as a man can gripe, and the void place without ſpots or kernels, and the jaws generally ſo great that the neck ſeems to couch within them, they are excellent ſigns of great wind, courage, and ſoundneſs of heart and body; but if the chaps are fat and thick, the place between them cloſed up with groſs ſubſtance, and the thropple little, they all are ſigns of ſhort wind and much inward foulneſs; if the void place appears full of knots and kernels, beware of the ſtrangles and glanders, the former of which may be eaſily diſcovered by a ſwelling between the two nether jaw-bones, which diſcharge a white matter. This diſorder uſually appears about three, four, or five years old; there is no young horſe but what is ſubject to it either perfectly or imperfectly; there is alſo a diſorder which is called the baſtard-ſtrangles, which appears ſometimes like, and ſometimes different from the true ſtrangles. The baſtard-ſtrangles are what proves the horſe has not thrown off his true ſtrangles, but that ſome foul humours are ſtill left behind; this diſorder may come at four, five, ſix, or ſeven years of age. A continual languor at work, and ſeemingly perpetual wearineſs, without any viſible ailment, is a certain ſign that he is not clear of this diſorder, which ſometimes will affect the foot, the leg, the ham, the haunch, the ſhoulders, the breaſt, or the eye, and without care in this latter caſe, may corrupt the pupil of the eye, as the ſmall pox does in men.

Feel if he has any flat glands faſtened to the nether jaws, which give him pain when you preſs him, and remember they indicate the glanders.

There is alſo another diſorder, much like the ſtrangles, which is called morfoundering, and appears by a running at the noſe, but the ſwelling under the jaw is leſs. If his jaws be ſo ſtraight that his neck ſwells above them, if it be no more than natural, it is only a ſign of ſhort wind and purſineſs, or groſſneſs; but if the

ſwelling is long, and cloſe by his chaps, like a whetſtone, then take care of the vivers, or ſome natural impoſthume.

His noſtrils; which, if open, dry, wide, and large, ſo as upon any ſtraining the internal redneſs is diſcovered, and if his muzzle be ſmall, his mouth deep, and his lips equally meeting, then all are good ſigns of wind, health, and courage; but if his noſtrils are ſtraight, his wind is but little; or if his muzzle is groſs, his ſpirit is dull; if his mouth be ſhallow, he will never carry a bitt well; and if his upper lip will not reach his nether, old age or infirmity have marked him out for carrion: if his noſe be moiſt and dropping, when it is clear water, it is a cold; if foul water, then beware of the glanders.

His breaſt; look down from his head thereto, and ſee if it is broad, out-ſwelling, and adorned with many features, for that ſhews ſtrength and durance; whereas the little breaſt is uncomely, and denotes weakneſs; the narrow breaſt is apt to ſtumble, fall, and interfere before; that which is hidden inwards, and wants the beauty and diviſion of many features, indicates a weak-armed heart, and a breaſt that is unwilling, and not fit for any violent toil or ſtrong labour.

In ſhewing a horſe, a dealer or jockey will generally place him with his fore feet on a higher ground than his hind ones, in order that the ſhoulder may appear further in his back, and make him higher in ſight than he really is; but be ſure to cauſe him to be led on level ground, and ſee that his ſhoulders lie well into his back; for an upright ſhouldered horſe carries his weight too forward, which is diſagreeable, and unſafe to the rider. Have his fore legs ſtand even, and you will then have it in your power to judge of his ſhoulders. If you do not obſerve this, the dealer will contrive that his near leg ſtands before the other, as the ſhoulders in that poſition, appear to lay further in the back. If his knees ſtand nearly cloſe, and his toes quite in a line, not turning in, nor yet turning out, be aſſured he will not cut: if he takes his legs up a moderate height, and neither clambers, nor yet goes too near the ground, he will moſt likely anſwer your purpoſe.

His thighs; look down from his elbow to his knees, and ſee that his fore-thighs are ruſh grown, well hardened within, ſinewed, fleſhy, and out-ſwelling, they being good ſigns of ſtrength; whereas the contrary betokens weakneſs, and are unnatural.

His knees; which, you are to ſee if they carry proportion, ſhould be clean, ſinewy, and cloſe knit, for then they are good and comely, but if one be bigger and rounder than the other, the horſe has received ſome miſchief; if groſs, he is gouty; if ſeared or hair-broken, it is a true mark of a ſtumbling jade, and a perpetual faller.

His legs; which look down, from his knees to his paſterns, and if they are found to be lean, flat, and ſinewy, and the inward bow of the knee without ſeams or hair-broken, it ſhews a good ſhape, and ſoundneſs; but if there are hard knots on the inſide of the legs they are ſpleints, if on the outſide they are ſcrews or excretions; if ſcabs be under his knee on the inſide, it is the ſwift-cut, and he will badly endure galloping: but if above his paſterns, on the inſide, ſcabs are found, it ſhews interfering: again, if the ſcabs be generally over his legs, it is extreme foul keeping, or elſe a ſpice of the mange: if his legs be fat, round, and fleſhy, he will never endure labour: and if ſeams, ſcabs, and hair-brokenneſs, be found on the inward bow of his knees, it ſhews a melander, which is a cancerous ulcer.

Circled feet are very eaſy to be known: they are when you ſee little excreſcences round the hoof, which encloſe the foot, and appear like ſo many ſmall circles. Dealers, who have ſuch horſes, never fail to raſp round their hoofs, in order to make them ſmooth; and to conceal the raſping; when they are to ſhew them for ſale, they black the hoof all over, for without that, one may eaſily perceive what has been done, and ſeeing the mark of the raſp, is a proof that the horſe is ſubject to this accident. As to the cauſe, it proceeds from the remains of an old diſtemper, or from having been foundered; and the diſeaſe being cured, without care being taken of the feet; whereupon the circulation of the blood not being regularly made, eſpecially round the crown, between the hair and the horn, the part loſes its nouriſhment, and contracts or enlarges itſelf in proportion as the horſe is worked. If theſe circles were only on the ſurface, the jockies method of raſping them down would then be good for nothing; but they form themſelves alſo within the feet, as well as without, and conſequently preſs on the ſenſible part, and make a horſe limp with ever ſo little labour. One may juſtly compare a horſe in this ſituation, to a man that has corns on his feet, and yet is obliged to walk a long way in ſhoes that are too tight and ſtubborn: a horſe therefore is worth a great deal leſs on this account.

After having well examined the feet, ſtand about three paces from his ſhoulders, and look carefully that he is not bow-legged, which proceeds from two different cauſes; firſt, from nature, when a horſe has been got by a worn-out ſtallion; and ſecondly, from his having been worked too young: neither in the one caſe nor the other is the horſe of any value, becauſe he never can be ſure footed: it is alſo a diſagreeable ſight if the knees point forwards, and his legs turn in under him, ſo that the knees come much further out than the feet: it is alſo called a bow-legged horſe, and ſuch an one ought to be rejected for any ſervice whatſoever, as he never can ſtand firm on his legs; and how handſome ſoever he may otherwiſe be, he ſhould on no account be uſed for a ſtallion, becauſe all his progeny will have the ſame deformity.

Paſtern and paſtern-joints: the firſt of which muſt be ſhort, ſtrong, and ſtanding upright; the ſecond, clear, and well knit together, for if they are ſwelled or big, beware of ſinew-ſtrains, and gourdings: and if the other be long, weak, or bending, the limbs will hardly be able to carry the body without tiring.

The hoof; which ſhould generally be black, ſmooth, tough, rather a little long, than round, deep, hollow, and full of ſounding, for white hoofs are tender, and carry the ſhoe ill: a rough groſs-ſeamed hoof diſcovers old age, or over-heating: a brittle one will carry no

ſhoe

ſhoe at all, and an extraordinary round one is bad for foul ways and deep hunting; a flat one that is pumiced, ſhews foundering; and a hoof that is empty and hollow ſounding, betokens a decayed inward part, through ſome dry wound or founder. Then as for the crown of the hoof, if the hair lies ſmooth and cloſe, and the fleſh flat and even, the hoof is perfect; but if the hair be ſtaring, the ſkin ſcabbed, and the fleſh riſing, you may expect a ring-bone, crown-ſcab, or quittor-bone.

You are to conſider the ſetting on of his creſt, head, and mane. As for his head, ſtand by his ſide, and ſee that it does not ſtand too high nor too low, but in a direct line: that his neck be ſmall at the ſetting on of his head, and long, growing deeper to the ſhoulders, with a high, ſtrong and thin mane, long, ſoft, and ſomewhat curling, they being beautiful characters, whereas to have the head ill ſet on, is the greateſt deformity: for if thick ſet, be aſſured it will cauſe him to toſs up his noſe for want of wind, which cauſes a horſe to carry his head diſagreeably high, and occaſions a tickliſh mouth. To have any bigneſs or ſwelling in the nape of the neck, ſhews the poll-evil, or beginning of a fiſtula: to have a ſhort thick neck, like a bull, to have it falling at the withers, to have a low, weak, a thick or falling creſt, ſhews both the want of ſtrength and mettle: to have much hair on the mane, denotes intolerable dullneſs: to have it thin, ſhews fury; and to be without any, or ſhed, ſhews the worm in the mane, the itch, or elſe plain mangineſs.

In the next place, you are to conſider his back, ribs, belly, and ſtones. Firſt view his chine, that it be broad, even, and ſtraight; that the ribs are well compaſſed, and bending outward; that the fillets be upright, ſtrong and ſhort, and not above a handful between his laſt rib and the huckle-bone: his belly ſhould be well laid down, yet laid within his ribs, and his ſtones well truſſed to his body, which are all good marks of health and perfection; be careful in obſerving that he has no ſwelling in his teſticles, a diſorder that uſually proceeds either from ſome ſtrain in working, or from the horſe's having continued too long in the ſtable, or from putting one leg over any bar, and being checked by the halter, or from any other accident that confines a horſe, makes him kick or fling, and bruiſe his cods, and there is no other way of knowing this diſtemper, but by ſome outward ſwelling upon the part. To have his chine narrow, he will never well carry a ſaddle without wounding: and to have it bending or ſaddle-backed, ſhews weakneſs: to have his ribs flat, there will be no liberty for wind; to have his fillets hanging, long, or weak, he will never clamber a hill, nor carry a burden; and to have his belly clung up or gaunt, or his ſtones dangling down, looſe or aſide, are both ſigns of ſickneſs, tenderneſs, foundering of the body, and unfit for labour.

You muſt view his buttocks, that they are round, plump, full, and in an even level with his body, or if long, that they be well raiſed behind, and ſpread forth at the ſetting on of the tail, which is comely and beautiful, whereas the narrow-pin buttock, the hog or ſwine rump, and the falling and downlet buttocks, are full of deformity, and ſhews both an injury in nature, and they are neither fit nor becoming for pad, foot-cloth, or pillion. The horſe that is deep in his girthing-place, is generally of great ſtrength.

His hinder thighs, or gaſkins; which obſerve that they be well let down, even to the middle joint, brawny, full and ſwelling, which is a very good ſign of ſtrength and goodneſs, whereas the lank, ſlender thighs ſhew the contrary.

View his cambrels; from the thigh-bone to the hock it ſhould be pretty long, but ſhort from the hock to the paſtern; have an eye to the joint behind, and if it be but ſkin and bones, veins and ſinews, or rather ſomewhat bending than too ſtraight, it is then perfect, and as it ought to be; but if it has chaps or ſores on the inward bow or bending, then it is a ſelander; if the joint is ſwelled generally all over, then it betokens a blow or bruiſe: if the ſwelling be particular, as in the pit or hollow part, or on the inſide, and the vein full and proud, and that it be ſoft, it is a blood ſpavin; if hard, a bone-ſpavin: but if the ſwelling be juſt behind, before the knuckle, then you may know it is a curb.

His hinder legs; which, ſee if they be lean, clean, flat, and ſinewy, then all is well, but if fat, they will not endure labour: if ſwelled, the greaſe is melted in them: if the horſe be ſcabbed above the paſterns, he has the ſcratches: if chapped under his paſterns, he has rains, and all of theſe are noiſome.

There is alſo a defect which is more common in the hind than the fore-legs, though the latter are not quite exempt from it, and it is called the rat's-tail, and is thus known: When you ſee from the hind part of the fetlock, up along the nerves, a kind of line or channel that ſeparates the hair to both ſides, this is a rat's-tail; and in ſummer there appears a kind of ſmall dry ſcab along this channel; and in winter there iſſues out a humidity like the water from the legs. A horſe may work notwithſtanding this diſorder, for it ſeldom lames him; it ſometimes occaſions a ſtiffneſs in the legs, and makes them trot like foxes, without bending their joints. The hind-legs ſhould be lean, clean, flat, and ſinewy; for if fat, they will not bear labour, if ſwelled, the greaſe is molten into them; if ſcabbed above the paſterns, it is the ſcratches, and if he hath chops under his paſterns, he hath what is generally called the rains. If he has a good buttock, his tail cannot ſtand ill, but it will be broad, high, flat, and couched a little inward.

Having with care examined the horſe, let him be run in hand a gentle trot; by this you will ſoon perceive if he is lame or not. Make the man lead him by the end of the bridle, as in this caſe you cannot be deceived by the man's being too near him. The far fore-leg, and near hind-leg, or the near fore-leg, and far hind-leg, ſhould move and go forward at one and the ſame time; and in this motion, the nearer the horſe taketh his limbs from the ground, the opener, the evener, and the ſhorter is his pace.

If he takes up his feet ſlovenly, it ſhews ſtumbling or lameneſs; to tread narrow, or croſs, ſhews interfering,

or failing; to ſtep uneven, ſhews wearineſs, and if he treads long, you may be apprehenſive he forges; by which I mean, that when he walks or trots, he ſtrikes the toes of his hind feet againſt the corners of his ſhoes before, which occaſions a clattering noiſe as you ride; and this proceeds generally from the weakneſs of his fore-legs, he not having ſtrength in them to raiſe them up ſufficiently quick to make way for the hind ones. A horſe of this kind is not near ſo ſerviceable as the horſe exempt from it, and the dealers, to get rid of him, will make abundance of pretences: if he has been juſt ſhoed, they will ſay the farrier has put him on too long ſhoes; if his ſhoes are old, they will tell you he is juſt come off a long journey, and is much fatigued; you muſt not therefore be over credulous to any thing a jockey or dealer affirms, for what they ſay in this manner, is too often with intent to deceive; and it is very certain that a horſe who forges can never be ſure-footed, any more than one who has tottering or bow-legs.

On his being mounted, ſee him walk. Obſerve his mouth, that he pulls fair, not too high, nor bearing down: then ſtand behind him, and ſee if he goes narrower before than behind, as every horſe that goes well on his legs goes in that manner. Take notice that he bruſhes not by going too cloſe; a certain ſign of his cutting, and tiring in travelling. Have nothing to do with that horſe who throws his legs confuſedly about, and croſſes them before: this you may obſerve by ſtanding exactly before or behind him, as he is going along. In his trot he ſhould point his fore legs well, without clambering, nor yet as if he were afraid; and that he throws well in his hind-legs, which will enable him to ſupport his trot, and ſhoot his fore-parts forwards.

In his canter, obſerve he does not fret, but goes cool in this pace; and in his gallop, he ſhould take his feet nimbly from the ground, and not raiſe them too high, but that he ſtretcheth out his fore-legs, and follows nimbly with his hind ones, and that he cutteth not under his knee (which is called the ſwift or ſpeedy cut) that he croſſes not, nor claps one foot on another, and ever leadeth with his far fore-foot, and not with the near one. If he gallops round, and raiſes his fore-feet, he may be ſaid to gallop ſtrongly, but not ſwiftly; and if he labours his feet confuſedly, and ſeems to gallop painfully, it ſhews ſome hidden lameneſs; for in all his paces, you ſhould particularly obſerve that his limbs are free, without the leaſt ſtiffneſs.

After he has been well exerciſed in thoſe different paces, it is your time to examine for an infirmity, not eaſily diſcovered, and that is, what I call tottering legs; you cannot perceive it till after a horſe has galloped for ſome time, and then, by letting him reſt a little, you will ſee his legs tremble under him, which is the diſorder I mean; how handſome ſoever the legs of ſuch a horſe may be, he never can ſtand well on them; you are, therefore, not to mind what the jockey ſays, when he talks of the beauty of the limbs, for if you oblige him to gallop the horſe, or fatigue him pretty much, (which is commonly done to try the creature's bottom) you will in all likelihood diſcover this defect, unleſs you ſuffer the groom to gallop him to the ſtable door, and put him up in a moment, which he will certainly endeavour to do, if he is conſcious of it, while the maſter has another horſe ready to ſhew you, in order to take off your attention from what he is afraid you ſhould ſee.

As to the defects of horſes, and parts moſt likely to defect, here follows a catalogue of the principal, as given by Mr. LAWRENCE; which a man ought to have in his mind's eye, whilſt about to make a purchaſe; more particularly, if unattended with warranty: viz.

Head ill ſet on, or too long, eyes, age, wolf's teeth, bladders in the mouth, gigs, glanders, jogged under the jaw, hide-bound, broken-wind, crib-biter or ticker, run-a-way, reſtiff, vicious, neck-reverſed, or cock-throppled, ewe or deer-necked, ſhoulder ſtraight and heavy, cheſt narrow or wide, high on the leg, broken knees, round legs, and greaſe, windgalls, ſinews down, ſplent, oſſet, ſpeedy cut, knock, mallenders, hurts in the joints, toes turned out or in, feet ſoft or hard, large, ſmall, or deep, quittor, falſe quarters, ring-bone, ſandcrack, groggy, founders, thruſhes, corns, high-goer, daiſey-cutter, fore-low, ſhallow girth, hollow-backed, bream-backed, long-backed, broken-backed or megrim, light carcaſe, burſten, ragged-hipped, droop-arſed, *Dutch* or round buttocks, hipſhot, ſtiffled, lame in whirlbone, ſpavins, bone and bog, curb, thoroughpin, capped hocks, or hough-boney, ſallenders, ſickle-hammed, cut behind, hammer and pinchers, or over-reach, wrong-end firſt, ſtring-halt.

RUN: to run a horſe, is to put him to his utmoſt ſpeed, a furious, quick, and reſolute gallop, as long as he can hold it.

Some take running for a gallop, but in the academies it ſignifies as above.

RUNNING-HORSE; if you would chuſe a horſe for running, let him have all the fineſt ſhapes that may be, nimble, quick, and fiery, apt to fly with the leaſt motion: long ſhapes are ſufferable, for though they are a ſign of weakneſs, yet they are alſo tokens of a ſudden ſpeed.

As for the ordering of ſuch a horſe, let him have no more meat than will ſuffice nature, drink once in twenty-four hours, and dreſſing every day, once at noon only. Give him moderate exerciſe morning and evening, airings, or the fetching in of his water; and let him know no other violence than in his courſes only.

In caſe he is very fat, ſcour him often, if of reaſonable caſe, ſeldom: if lean, then ſcour him with a ſweet maſh only, and let him ſtand dark and warm, having many clothes and much litter, and that of wheat-ſtraw only.

He ought to be empty before you run him, and his food the fineſt, lighteſt, and quickeſt of digeſtion that may be.

Thoſe ſweats are more wholeſome that are given abroad, and the coolings moſt natural that are given before he comes to the ſtable: his limbs muſt be kept ſupple

ſupple with cool ointments, and let not any hot ſpices come into his body.

If he grows inwardly, waſhed meats are moſt proper; if looſe, give him wheat ſtraw in more abundance; and be ſure to do every thing neat and cleanly about him, which will nourith him the better. *See* HORSE RACING.

RUNNING KNOTS; theſe ſort of knots may be otherwiſe called ſlipping knots, collars, *&c.* which are uſed in taking of hares and conies; in the ſetting of which, rub them over (as alſo the handles and ſoles of your ſhoes) with the croſſets of a hare, or ſome green wheat, or the like, for they are of ſo quick a ſmell, that you will elſe be diſcovered; and in placing the collar, make the leaſt alteration imaginable, for old hares are very ſubtle, and therefore it will not be amiſs to plant a ſecond running knot flat on the ground, juſt under that which you ſpread abroad, by which means the hare may be taken by the hinder parts; this ſecond being intended to ſurpriſe him by the foot, and one or the other will ſeldom fail.

But as it is the nature of a hare, being once taken in any of theſe knots, to pull with all his ſtrength, and ſeldom or never turns about like a rabbit to bite off the hold-faſt, you ſhould therefore uſe wire, double twiſted.

Set your knots thus, *viz.* Take a little ſtick twice as big as your thumb, and about a foot long; at the upper end make a hole big enough to receive the tip of your little finger, then prepare your collar of ſtring, packthread, or wire; if of the latter, tie the end thereof to any ſtrong packthread, draw it through the hole of the ſtick, and faſten it to ſome ſtrong bough, which muſt be bent down towards the ſtick.

After this put a ſhort peg in it about an inch long, ſo that the branch being let go may not ſlip your knot, but may ſtand bent; that being done, open your collar to the largeneſs of the meſh, and if hares or rabbits be taken, and they turn about to bite off their chain, they preſently rub out the little peg, whereupon the bough flies up and ſtrangles them.

RUNNING THRUSHES, Mr. LAWRENCE ſays, is a natural defect, and of courſe, in ſuch caſe, a remedy to repel the diſcharge would ſoon be found worſe than the diſeaſe: but there is a baſtard ſpecies of this genus, acquired by bad grooming, and ſuffering particles of grit and dirt to lodge in the aperture of the frog; another more frequent cauſe ſtill, is the cutting and trimming, or rather deſtroying the frog, by common ſhoers, whence the cleft is diſtended, and an acrimonious diſcharge enſues. The remedies are frequent ablutions, with a good lather of old ſtrong ſoap, detergents, and ſtyptics; and, above all, encouraging the full natural growth of the frog, from which not an atom ſhould be pared, excepting what is ragged or decayed. The diſeaſe is a fœtid diſcharge from the frog, the aperture of which in conſequence appears moiſt, the horn perhaps deſtroyed. It indicates a ſtrong, full habit, and hard feeding, and has been well compared by BARTLET to the copious excretion of ſweat from the human feet, which it would be very dangerous to repel. To talk of curing running thruſhes, is merely to amuſe. Horſes moſt liable to them will always have tender heels, and ſhould be ridden with bar ſhoes.

It is beneficial, in general, to take off the ſhoes of a horſe which is neceſſitated to ſtand long in the ſtable, and does no work; the growth or the cruſt, and the enlargement of the heels, is thereby promoted.

RUPTURE, INCORDING, OR BURSTENNESS IN A HORSE, is when the rim, or thin film or caul which holds up the entrails, is broken, or over-ſtrained, or ſtretched ſo that the guts fall down.

This comes either by ſome blow, or by ſome ſtrain in leaping over a hedge, ditch, or pale, by teaching him to bound when he is too young; or by forcing him when he is full to run beyond his ſtrength: ſometimes by ſudden ſtopping upon uneven ground, where by his ſtraddling and ſlipping, his hinder feet tear the rim of his belly, ſometimes from being ſtaked or gored by oxen, and various other accidents. GIBSON ſays he has known inſtances of the belly being ruptured, from too deep an inciſion for the rowel. In a rupture, a portion of omentum or caul, or of the guts themſelves, is forced through the muſcles of the belly at the navel, or through the rings into the ſcrotum or cod. The tumour, when not too large, will return, on being preſſed, as if it were merely flatulent, and the rupture or chaſm may be felt. It is eaſy to conceive, that ſuch a defect is incurable, except poſſibly in a very ſlight caſe, and a very young ſubject; the intention muſt be to palliate, to render the animal as uſeful as poſſible, and as comfortable to itſelf. In a recent caſe, bleed, and give emollient and oily clyſters, boiled barley, malt maſhes, nitrated water. Foment twice a day with camphorated ſpirits and vinegar, warm; and poultice with oatmeal, oil, and vinegar. Uſe an aſtringent embrocation, made as follows:

Take the beſt diſtilled vinegar; aqua vegeto, made with one pint of water, and three tea-ſpoons full of GOULARD's extract of Saturn, two ounces of oil of turpentine: mix. A quantity of this ſhould be kept cloſe corked for ſtable uſe, as it improves by keeping: its ſtrength may be varied by the increaſe or diminution of the quantity of GOULARD's extract. Uſe this for ſome time afterwards.

The ſigns to know it, are his forſaking his meat, and ſtanding ſhoring and leaning on the ſide where he is hurt.

If on that ſide you ſearch with your hand, between his ſtones and his thighs upwards, towards the body, and ſomewhat above the ſtone, you may find the gut itſelf big and hard in the feeling, whereas on the other ſide you will find no ſuch thing.

For the cure: Take common pitch, dragon's blood, powder of bole ammoniac, maſtic, and frankincenſe, of each one ounce; of which make a plaiſter and lay it to the horſe's loins, and upon the rupture, and let it remain till it falls off of itſelf, and it will cure him; yet conditionally that you give him ſome ſtrengthening things inwardly.

Let his diet be ſcalded bran or malt, or boiled barley, that his bowels may be emptied as much as poſſible. Nothing will be ſo effectual, as a ſuſpenſion in a bandage, could it conveniently be faſtened on. Should there

there be an external wound, and the ſkin be divided, in courſe the protruded inteſtine muſt be carefully returned, and the wound healed with ſpirituous and balſamic application. *See* Article STONE-SWELLING.

RUT, (in Hunting) the venery or copulation of deer. *See* DEER.

RYE, (in Hawks) a diſeaſe which proceeds from ſudden cold, after heat and labour; it produces a continual ſtoppage in the head, which in a ſhort time cauſes the frounce, or a perpetual dropping humour, and of a very difficult cure.

In order to prevent this diſeaſe, hawks ſhould not be ſet in any cold place, as in a damp room; but on a warm perch, which at ſuch time ſhould be a little higher than is uſual.

The cure: If ſhe be taken in time, is to give her reſt, and keep her warm, and by orderly feeding according to theſe directions:

Let her food be opening, and of eaſy digeſtion, hot and moiſt, and it will be proper to give her ſometimes at her meals, two or three blades of mace bruiſed; you muſt alſo give her conſtantly with her meat, a confection of clarified butter with rue, ſaffron, and ſugar-candy in powder, finely made up into pellets; give her alſo good ſtore of plumage, and keep her warm; theſe things will looſen and open her, and cauſe her to throw with her head, and when ſhe once comes to do ſo, then blow the juice of daiſy-roots, with a quill or ſtraw, into her nares an hour before you feed her, and alſo blow the juice of ſage into her nares thrice a week in the morning; theſe are both good to purge away tough, ſlimy, corrupted, congealed filth, the body being prediſpoſed to evacuate it.

The cold or rye in the head, being apt in time to fall into her eyes, you muſt in that caſe apply the remedy for curing the rye, which is the cauſe thereof; but if it has cauſed any film or web in the eye, then take ſome fine ginger finely ſcraped, and blow it into the eye with a quill; it will break the film, and then the juice of ivy will be ſufficient.

SACCADE, is a jerk more or leſs violent, given by the horſeman to the horſe, in pulling or twitching the reins of the bridle on a ſudden, and with one pull, and that when a horſe lies heavy upon the hand, or obſtinately arms himſelf.

This is a correction uſed to make a horſe carry well, but it ought to be uſed diſcreetly, and but ſeldom.

SACER, (in Ornithology) the *Engliſh* name for the blue-legged falcon, with a duſky ferrugineous back. *See* FALCON.

SADDLE, in the menage, a ſtuffed ſeat, laid on the back of a horſe, for the convenience of the rider. The origin of the ſaddle is not well known. GOROP. BECANUS attributes its invention to the *Salii*, a people among the ancient *Franks*; and hence, ſays he, came the Latin *ſella*, ſaddle. It is certain the ancient *Romans* were unacquainted with the uſe either of ſaddle or ſtirrups; whence GALEN obſerves in ſeveral places, that the *Roman* cavalry, in his time, were ſubject to ſeveral diſeaſes of the hips and legs, for want of having their feet ſuſtained on horſeback. And long before him, HIPPOCRATES had noted, that the *Scythians*, who were much on horſeback, were frequently troubled with defluxions in their legs, becauſe of their hanging down. The firſt time we hear of ſaddles among the *Romans* was anno 340, when CONSTANTIUS, endeavouring to deprive his brother CONSTANTINE of the empire, made head againſt his army, and, entering the ſquadron where he himſelf was, threw him off his ſaddle, as we are informed by the hiſtorian ZONARAS. Before this time, they made uſe of ſquare pannels; ſuch as we ſee in the ſtatue of ANTONINUS in the capitol. The uſe of ſaddles was firſt eſtabliſhed in *England*, by a law of HENRY VII. whereby the nobility were obliged to ride on ſaddles. It is much later that the *Iriſh* have taken to it. There are various kinds of ſaddles; as the hunting-ſaddle, which is compoſed of two bows, two bands, fore-bolſters, pannels, and ſaddle-ſtraps: and the great ſaddle has, beſide theſe parts, corks, hind-bolſters, and a trouſſequin. The pommel is common to both. A horſeman, that would ſit a horſe well, ought always to ſit on his twiſt, and never on his buttocks, which ought never to touch the ſaddle; and, whatever diſorder the horſe commits, he ought never to move above the ſaddle. There are ſeveral ſorts of ſaddles in uſe, *viz.*

1. The running ſaddle; which is a ſmall one with round ſkirts.

2. The *Burford* ſaddle, which hath the ſeats and the ſkirts both plain.

3. The pad-ſaddle; of which there are two ſorts, ſome were made with burs before the ſeats, and others with bolſters under the thighs.

4. A *French* pad-ſaddle; of which the burs come wholly round the ſeat.

5. The portmanteau-ſaddle; that has a cantle behind the ſeat, to keep the portmanteau or other parcel off from the back of the rider.

6. A war-ſaddle; which has a cantle and a bolſter behind and before; alſo a fair bolſter.

7. The pack-ſaddle.

As for the ſeveral parts of a ſaddle, and the deſcription of them, they are to be found under the ſeveral heads, as they fall out in their alphabetical order, as BARS, BUCKLE, CIVET, CRUPPER, BUCKLE AND STRAPS, GIRTH-WEB, *&c.*

SADDLE-GALL; when a horſe's back is hurt or fretted by the ſaddle, it may be cured by bathing the part with urine, or warm wine; and ſometimes when the ſore is large, with the ſecond water, ſtrewing over it the powder of an old rope, or flax, and eating away the proud fleſh with vitriol, or colcothor.

SAL POLYCRESTUM, a peculiar medicine for horſes, and is prepared as follows:

Set a crucible, or iron pot in the midſt of a heap of fine coals, till it is all over red hot, even at the bottom; then caſt into it with a ſpoon, a mixture of ſulphur, or brimſtone and fine ſaltpetre, both in powder, of each an ounce, which will immediately break out into a flame.

When the flame diſappears, ſtir the matter at the bottom with an iron, to cauſe the fire to penetrate it more effectually; then caſt in more of the ſame mixture by ſpoonfuls, ſtirring the matter as before, after the

the flame has diſappeared, between every ſpoonful, and continue to do the ſame till the whole mixture is caſt in.

Then cover the crucible, and lay coals on the top, and every where round the ſides, ſuffering it to cool of itſelf; when it is cold, pound the matter to powder, which if it be prepared rightly, will be of a pale roſe-colour, or elſe white, when the ſaltpetre is not very pure; but if it be greyiſh, it is bad.

Two pounds of mixture will yield three quarters of a pound of this ſalt: this ſalt will diſſolve in water, and grow red in the fire without waſting.

It is ſo very cooling, that it muſt not be given alone, but corrected with half an ounce of juniper-berries to an ounce of the ſalt; or with ſcrapings of nutmeg in moiſtened bran.

If the horſe will not eat it ſo, infuſe it all night in a quart of wine, and give it him lukewarm faſting.

And for a beating of the flanks, and a baked dryneſs of his dung, three or four clyſters, with two ounces of ſal polycreſtum to each, will be very ſerviceable.

SALENDERS, are cracks in the bending of the hough. The diſeaſe is the ſame as the melanders, which is only ſimilar cracks in the bending of the knee. As is the diſeaſe, ſo is the cure, alike in both.

SALMON, is a large fiſh, always breeding in rivers that are not brackiſh, yet diſcharge themſelves into the ſea, ſpawning commonly in *Auguſt*, which become ſamlets in the ſpring following.

The milter and ſpawner having both performed their natural office or duty, betake themſelves to the ſea; and ſome tell us, they have known that when they have grown ſo impatient, that clapping their tails to their mouths, with a ſudden ſpring they have leaped clear over a wear or any other obſtacle which ſtood in their way; and ſome by leaping ſhort have been by that means taken.

If they happen to meet with ſuch obſtructions that they cannot get to the ſea, they become ſick, lean, and pine away, and die in two years time.

But if they ſpawn in the mean time, from thence proceeds a ſmall ſalmon, called a ſkegger, which will never grow large.

It is the ſea that makes them grow large, but the freſh rivers make them grow fat; and by how much the farther they are from the ſea up the river, by ſo much the fatter they grow, liking their food there the better.

From a ſamlet (which is but little bigger than a minnow) they grow to be ſalmon, in as ſhort a time as a goſling will grow to be a gooſe.

SALMON-FISHING; they bite beſt at about three o'clock in the afternoon, in the months of *May*, *June*, *July*, and *Auguſt*, if the water be clear and ſome ſmall breeze of wind be ſtirring, eſpecially if the wind blows againſt the ſtream, and near the ſea.

A ſalmon is catched like a trout, with worm, fly, or minnow, and the garden-worm is an excellent bait for him, if it be well ſcoured and kept in moſs twenty days, in which time the worms will be very clear, tough, and lively.

The ſalmon hath not his conſtant reſidence like the trout, but removes often, coveting to be as near the ſpring head as may be, ſwimming generally in the deepeſt and broadeſt parts of the river, near the ground.

There is a particular manner of fiſhing for the ſalmon, with a ring of wire on the top of the rod, through which the line may run to what length is thought convenient, having a wheel alſo near the hand.

Some ſay there is no bait more attractive, and more eagerly purſued by the ſalmon and moſt other fiſh, than lob-worms ſcented with the oil of ivy-berries or the oil of polypody of the oak, mixed with turpentine; and that aſſa-fœtida is alſo incomparably good.

Take the ſtinking oil, drawn out of polypody of the oak by a retort, mixed with turpentine and hive-honey, and anoint your bait therewith, and it will doubtleſs draw the fiſh to it.

The artificial fly is a good bait for a ſalmon, but you muſt then uſe a troll as for the pike, he being a ſtrong fiſh: as the ſalmon is a large fiſh, ſo muſt your flies be larger than for any other, with wings and tails very long.

Though when you ſtrike him, he will plunge and bounce, yet he does not uſually endeavour to run to the length of the line, as the trout will do, and therefore there is leſs danger of breaking your line.

If you would angle for ſalmon at ground, take three or four garden-worms, well ſcoured, and put them on your hook at once, and fiſh with them in the ſame manner that you do for trouts.

Be ſure to give the ſalmon (as well as all other fiſh) time to gorge the bait, and be not over haſty, unleſs your bait be ſo tender it will not endure nibbling at.

SALMON-PEEL, is a fiſh that agrees with the ſalmon in the red colour of it's fleſh, and perhaps alſo in kind: of theſe there is ſo great abundance in ſome rivers in *Wales* that they are very little valued, and the fiſhermen ſometimes throw them to the hogs.

SALMON-PIPE, an engine for catching ſalmon and ſuch like fiſh.

SALMON-SEWSE, the young fry of ſalmons.

SALTS (in Horſemanſhip) the leaping and prancing of horſes, a kind of curveting.

SAMLET, or BRAMLIN, never exceeds ſix or ſeven inches in length, and has teeth not only in the jaws but in the palate and tongue. The body is covered with ſmall ſcales like a trout; the back is full of black ſpots, and on the ſides there are five or ſix impreſſions of ſuch form as though they had been made with fingers; hence ſome give them the title of Fingerins; in every one of theſe pits there is generally a red ſpot. Their bellies are white, and their tail is forked like a ſalmon: but what is moſt remarkable in this fiſh, and which is exceeding ſtrange, is, that they are all males.

SCAB or ITCH, a diſtemper in horſes, proceeding from their being over-heated, and of corrupt blood; to cure which you muſt let him blood and purge him: for this take of the root of wild cucumber, and reduce it to powder; infuſe it in a pint and a half of white wine for three hours, and give it him to drink, and he will ſoon be well.

If the diſtemper appears outwardly rub all the parts of

of the horſe's body that are affected, with ointment called *Ægyptiacum*, or *Unguentum Apoſtolorum*.

SCABBARD, is the ſkin that ſerves for a ſheath or caſe to a horſe's yard.

SCABBED HEELS IN HORSES, a diſtemper, called alſo the fruſh.

Sometimes the fruſh falls away by degrees, by reaſon of an eating ſcab which penetrates to the quick, and cauſes ſo great an itching that the horſe cannot walk without halting; but theſe ſores are not ſo dangerous as they are troubleſome.

Before the horſe grows lame, his feet will ſtink like old rotten cheeſe, ſo that you eaſily diſcover the nature of the grief, ſince you cannot poſſibly come into the ſtable without ſmelling it; and beſides the horſe will ſometimes beat the ground with his feet, by reaſon of the intenſeneſs of the itching.

To begin the cure, you muſt pare the fruſh as near as you can with a buttreſs, and having quenched a good quantity of unſlaked lime in vinegar, and ſtrained it, boil it, and throw it boiling hot upon the fruſh: after you have done this, apply a reſtringent charge of powder of unſlaked lime, mixt with the ſecond water, or the black reſtringent, made of ſoot, vinegar, and whites of eggs.

The following ointment, called the *Counteſs*'s ointment is alſo very uſeful in theſe caſes: in half a pint of aqua-vitæ boil a pound of honey in a clean glazed pot, over a gentle fire, ſtirring it till the honey is thoroughly heated and incorporated with the aqua-vitæ; then add verdigris, *Venetian* borax, and gall, of each two ounces, ſearſed through a fine ſearſe, with two ounces of white vitriol pounded.

Boil theſe all together over a ſmall coal fire, ſtirring them till they be well incorporated, and keep the ointment for uſe; this will cure in three or four applications, but the dreſſing muſt be kept on with ſplents.

If the diſeaſe return after the ſore has been cleanſed, then apply the following ointment, which is called the neat-herd's ointment.

Take burnt-alum and borax in fine powder, of each two ounces; white vitriol and verdigris, of each four ounces, very finely powdered; put theſe into a very clean pot, with two pounds of honey, and boil them over a clear fire, ſtirring all well together, till they be well incorporated; when the ointment is cool, ſtir two ounces of ſtrong aqua-fortis; keep it well covered for uſe, and ſtir it once a day, for the firſt ſix days.

This ointment will heal them, though the internal cauſe can hardly be removed; and beſides, the horſe may be let blood in the toe, from time to time.

For preſervation, the fruſh ought to be pared often, and the place rubbed once or twice with the ſecond water, which will waſte away part of the corruption, and dry up the roots of the ſcabs ſo effectually, that they will not break forth again for a long time; then bathe the feet daily with the following water:

Boil alum and white vitriol, of each a pound and a half, in a gallon of water, till it be waſted to two quarts at leaſt; when you perceive the itching to be gone, melt tar, or black pitch, upon the ſcabs, and keep the horſe's feet well pricked, and free from duſt, or any other filth that may dry them.

Or take of rectified ſpirits of wine, and the ſharpeſt vinegar, each two ounces; tincture of myrrh and aloes, one ounce; of *Ægyptiac* ointment, half an ounce; mix them well together.

After waſhing the part with this mixture, dip a pledgit of tow into it, and ſecure it in the beſt manner you can.

During the uſe of this, it will be neceſſary to give a purge once in ſix or eight days, and in the intermediate days the diuretic medicines propoſed for the greaſe, *which ſee*.

SCATCH-MOUTH; is a bitt-mouth, differing from a cannon-mouth in this, that the cannon is round, and the other more oval.

That part of the ſcatch-mouth which joins the bitt to the branch, is likewiſe different; a cannon being ſtaid upon the branch by a fonceau, and a ſcatch by a caperon, which ſurrounds the banquet; the effect of the ſcatch-mouth is ſomewhat bigger than that of the cannon-mouth, and keeps the mouth more in ſubjection.

Commonly your ſnaffles are ſcatch-mouths.

SCENT, is an effluvium continually ariſing from the corpuſcles that iſſue out of all bodies; and, being impregnated with the peculiar ſtate and quality of the blood and juices of that particular animal from which they flow, occaſions the vaſt variety of ſmells or ſcents cognizable by the olfactory nerves, or organs of ſmelling. Hence the reaſon why one perſon differs from another in ſcent, and why a dog will trace the footſteps of his maſter for an hundred miles together, follow him into any houſe, church, or other building, though ſurrounded by ten thouſand. And, when the faithful animal has thus diligently ſought out and recognized his maſter, he is ſeldom willing even to truſt the evidence of his own eyes, until, with erected creſt, he has taken a few cordial ſniffs, to convince himſelf he is right. Hence alſo we perceive how a pack of hounds are enabled to purſue the hare, fox, ſtag, or any other animal, they are trained to hunt, acroſs the ſcent, and amidſt the ſociety of others of the ſame ſpecies, without being diverted from the purſuit of that ſelf-ſame animal they had firſt on foot. And hence too we diſcover how it is poſſible for birds and beaſts of prey to be directed to their food at ſuch vaſt diſtances; for theſe corpuſcles, iſſuing from putrid bodies, and floating in the air, are carried by the wind to different quarters; where ſtriking the olfactory nerves of whatever animals they meet in their way, immediately conduct them to the ſpot; and it is by this means the ſmall-pox, meaſles, putrid fevers, and all epidemic complaints, are communicated, and the plague and peſtilence conveyed from one place to another. It matters not how much the effluvia may be gone off, ſo as enough remains to irritate the olfactory organ; for, whether it be bird or beaſt, they try the ſcent in all directions, till at length they diſcover that which is ſtronger and ſtronger in proportion as they proceed, and this nature has taught them to know is the direct

and

and obvious road to their prey, and prevents them from following a contrary courſe, which is naturally weaker and weaker, and what in hunting is termed heel. This obſervation is confirmed by the increaſed eagerneſs we perceive in all animals, the nearer they approach the object of purſuit; as we ſee hounds and ſpaniels, in hunting and ſhooting, are the moſt earneſt, in proportion as the ſcent is recent, and as they draw nearer to the game. The ſame thing amongſt quadrupeds, whether wild or domeſtic, directs the male to the female that is in ſeaſon for love; and hence we ſee the dog, the boar, the bull, and the ſtallion, when turned looſe, apply their noſtrils to the ambient air, and proceed accordingly. By the ſame medium the vermin which infeſt our dwellings, know how to direct their operations, whether to undermine walls, eat through ſolid boards, croſs rivers, or climb ſpouts; which ſhews how much ſtronger the faculty of ſmelling is poſſeſſed by the brute ſpecies than by the human; wiſely ordained by nature, to enable them to ſeek their food, and propagate their ſpecies; but for which they would often periſh, or have long ſince became extinct.

There are wonderful inſtances of ſome animal carcaſes, which, though ſlaked with lime, and buried ten feet under ground, have ſent forth ſo ſtrong a ſcent, as to have attracted dogs to the ſpot, that eagerly endeavoured to dig away the earth to get at them. And an inſtance happened only a few years ſince at *Peterſfield* in *Hampſhire*, where an unfortunate female, having privately delivered herſelf of two children, went and buried them in a deep hole in an adjoining field; but within three days ſome dogs were attracted to the ſpot by the ſcent, dug them up, and partly devoured them, before the ſhocking circumſtance was diſcovered. No wonder then a pack of hounds which have caught the ſcent of a polecat or weaſel, will purſue them into the thickeſt foreſt, and aſſemble round the very tree up the trunk of which the creature hath run for ſhelter; or that blood-hounds, as in times of old, ſhould trace out fugitives and robbers in ſubterraneous caverns, in trees, caves, or foreſts, or in clefts of inacceſſible rocks, of which inſtances are given by the moſt reputable hiſtorians. It is however to be remarked, that, as all animals hunt for and purſue their prey by its ſcent, ſo they ſeem inſtinctively to know that they themſelves are hunted and purſued by means of the ſcent iſſuing from their own bodies.

The jackal appears to have the gift of ſcent equal to a dog, of which it ſeems to be a wild ſpecies. They go in packs of forty, fifty, and even two hundred, and hunt like hounds in full cry from evening to morning. They deſtroy flocks and poultry; ravage the ſtreets of villages and gardens near towns; and will even deſtroy children, if left unprotected. They will enter ſtables and out-houſes, and devour ſkins, or any thing made of that material. They will familiarly enter a tent, and ſteal whatſoever they find from the ſleeping traveller. In default of living prey, they will feed on roots and fruits, and even on the moſt infected carrion: they will greedily diſinter the dead, and devour putrid carcaſes. They attend caravans, and follow armies, in hopes that death will provide them a banquet. Their voice naturally is a howl. Barking, Mr. PENNANT obſerves, is latently inherent, and in their ſtate of nature ſeldom exerted: but its different modifications are adventitious, and expreſſive of the new paſſions and affections gained by a domeſtic ſtate. Their howlings and clamours in the night are dreadful, and ſo loud that people can ſcarcely hear one another ſpeak. DELLON ſays, their voice is like the cries of a great many children of different ages mixed together: when one begins to howl, the whole pack join in the cry. This animal is vulgarly called the lion's provider, from an opinion that it rouzes the prey for that quadruped. The fact is, every creature in the foreſt is ſet in motion by the fearful cries of the jackals; the lion, and other beaſts of rapine, by a ſort of inſtinct, attend to the chaſe, and lie in wait, to ſeize ſuch timid animals as betake themſelves to flight at the noiſe of this nightly pack.

From a contemplation of nature in general, it will appear, that there is an occult inſtinctive principle infuſed into the whole race of animal beings, whereby they are unerringly led on to the propagation and preſervation of their ſpecies; yet ſo that no one ſhall become too numerous for the exiſtence of another, upon which they prey, or with which they live in a continual ſtate of warfare. We may likewiſe remark, that the more ſimilarity we diſcover among brutes, the more amicable we find them towards each other, becauſe the ſcent of their bodies have an agreement pleaſing to their ſenſitive faculty, without exciting the appetite; but for which the ſame ſpecies would inceſſantly devour each other, and the purpoſes of creation would be annihilated by the operation of its own works.

SCIATICA OR RHEUMATISM. A diſorder horſes are liable to; to cure which take half an ounce of oil of turpentine, and two ounces of camphorated ſpirits of wine, with which rub the part well, and let the horſe have reſt for a fortnight, and the complaint will be removed.

SCOWRINGS FOR HORSES; are thoſe gentle, wholeſome, and natural medicines, which, not ſtirring up any great flux of humours, only keep the body clean from ſuch as are apt to riſe or grow, being every way as wholeſome in health as ſickneſs, and may moſt properly be termed preparatives or preparers of the body, to entertain ſtronger remedies.

There are ſeveral kinds of them preſcribed, but the moſt gentle and natural is graſs, which you ſhould give him for fifteen days together, after which time it will fatten him.

The beſt graſs for this purpoſe, is that of a new mown meadow, for that will rake his guts very well, and not fatten; but if you would have him fatten, you muſt put him into ſome other paſture, which has not been mown, next to this forage, *i. e.* only the blades of green corn, as wheat, rye, barley, *&c.* given him for ſeven days and no more, will cleanſe and cool his body; the like alſo will the leaves of fallow, the elm, or green thiſtle, do.

A maſh of malt, taken in a larger proportion than is

directed under that head, mixed with a handful or or more of beaten hemp-ſeed is alſo a gentle medicine in this caſe.

Other ſorts of ſcowrings there are; particularly after ſweat, take half an ounce of roſin, or jalap in powder; as much of cream of tartar powdered, as alſo of liquorice in powder; make them into balls with freſh butter, of about the bigneſs of a ſmall walnut, and give him four or five at a time in a hornful of beer, one after another.

One of a ſtronger nature is to mix a handful or two of hempſeed with oats, or take a handful of the powder of dried box leaves, and as much of brimſtone, and mix it amongſt his provender; theſe two purge the head, ſtomach, and entrails, will kill all kind of worms, and dry up phlegm.

Another preſcription is, to take ſalad oil half a pint; a pint of new milk from the cow; brew it together, and give it him lukewarm; or elſe take a pint of muſcadine and half a pint of ſalad-oil, and give it him to drink; or the ſame quantity of oil and ſack, mixed together, and give it lukewarm; this has much the ſame effect as the others, and is good for any manner of cold, ſtopping the wind-pipe; and if you add a quantity of ſugar-candy thereto, it will be the better.

But for ſuch horſes, whoſe greaſe muſt neceſſarily be melted, as running, hunting horſes, and the like, firſt take twenty raiſins of the ſun, with the ſtones picked out of them, ten figs ſplit round-wiſe, boil them in two quarts of running water, till the water be conſumed and thickened: then take powder of liquorice, anniſeed, and ſugar-candy, finely ſearſed, and mix it with the raiſins and figs, ſtamping and working them together till they become a ſtiff paſte, then making round balls thereof, of a tolerable bigneſs, roll and cover them all over with freſh butter, and give as many of them to the horſe as you ſhall think ſuits his ſtrength, provided the day before you give him ſuch exerciſe as will raiſe his greaſe, and that immediately before you give him the medicine, you alſo warm him thoroughly, that the humours being again ſtirred up, it may the more effectually work.

Another very good receipt to purge a horſe from all greaſe, glut, or filthineſs within his body, is to take three ounces of anniſeed, ſix drachms of cummin-ſeed, a drachm and an half of cathamus, an ounce and two drachms of fenugreek ſeed, an ounce and a half of brimſtone, all which beat to a fine powder, and ſearſe them; then take a pint or two of ſalad oil, a pound and a half of honey, and of white wine two quarts; and this with as much fine wheat flour as is ſufficient; make all into a ſtiff paſte, and knead and work it well, which you are to keep in a gallipot, cloſe covered, for your uſe.

Now when the horſe has been hunted, and is at night, or in the morning, very thirſty, take a ball of it as big as a man's fiſt, and diſſolve it in a gallon or two of cold water, and it will make the water look as white as milk; then give it him in the dark, leſt the colour diſpleaſe him; if he drinks it, then feed him; if he does not, let him faſt till he takes it, which certainly he will do at twice or thrice offering; and when he has once taken it, he will refuſe all other drink for it; and you cannot give him too much nor too often of it, if he has exerciſe.

For another ſort of ſcowring, when others will not work: take a quarter of a pound of ſweet butter, as much of Caſtile ſoap, and half an ounce of aloes; beat them together, and add two ſpoonfuls of beaten hempſeed, and of roſin half a ſpoonful; of ſugar-candy an ounce, bruiſed; work them all into a paſte, and immediately after his heat, give it him in balls, having firſt warmed him and ſtirred up the greaſe and foulneſs within him.

SCRATCHES IN HORSES, a diſtemper of ſeveral ſorts and kinds, diſtinguiſhed by various names, *viz.* crepances, rat-tails, mules, kibes, pains, *&c.* being no other than the ſcratches, which are certain dry ſcabs, chops, or riſts, that breed between the heel and paſtern joints, and do many times go above the paſtern, to the very hoof of the hinder legs, and ſometimes are upon all four legs, though this is not very common.

They proceed from dry melancholy humours, which fall down upon the horſe's legs, or from the fuming of his own dung lying under his heels, or near them: ſometimes by his heels not being cleaned, eſpecially after a journey or hard labour; they not being rubbed dry from the ſand and dirt, after he is brought in from watering, which burns and frets them, and ſo cauſes ſwellings, and thoſe ſwellings the ſcratches.

Sometimes they proceed from a corruption of blood, after great heats; taken now and then by being bred in fenny, marſhy, watery grounds; or laſtly, by over-hard riding, whereby his greaſe being melted, it falls down and ſettles in his paſtern and fetlock, and theſe produce this ſorrance.

The ſigns to know this diſtemper, are the ſtaring, dividing, and curling of the hair. It begins firſt with dry ſcabs in the paſtern joints, like chaps or chinks, in ſeveral ſhapes and forms; ſometimes long ways, ſometimes downright, and at other times over-thwart, which will cauſe the legs to ſwell and be very gouty, and run with fretting, watery matter, and offenſive ſtuff, which will make him go lame at firſt ſetting out, that he will be hardly able to go.

For the cure you muſt be ſure to keep his legs from wet, all the while you uſe any application to them; clip away the hair very cloſe from his heels, or it will poiſon his legs; and before you apply any remedy to them, ſcrape off the ſcabs, and wa'h the blood off with chamber-lye, and ſalt of brine.

There are a multitude of receipts for this purpoſe, but I ſhall preſcribe only ſome of the chief.

Sometimes indeed the ſcratches prove very obſtinate, in which caſe the following ointment ſhould be uſed: obſerving that if any cavities ſhould be formed, to lay them open; for it is in vain to expect a cure unleſs you dreſs the wound to the bottom.

Take of *Venice* turpentine, four ounces; of crude mercury, one ounce; incorporate them well together by rubbing them a conſiderable time in a glaſs or iron mortar; and then add to the mixture honey and ſheep's ſuet, of each two ounces.

Anoint the parts affected once a day; and if the horſe

horſe be full of fleſh, it will be neceſſary to bleed and purge.

1. Take brimſtone finely powdered, mix it with ſweet butter, and anoint the part with this once a day.

2. Take a handful of the tender tops of elder-buds and as many bramble-berries, and before they are ripe, and when they are red, bake them in two quarts of wort, and about the quantity of an egg-ſhell of alum, with which water, very hot, waſh the ſorrance twice a day.

3. Let the horſe blood in the ſhackle-veins, ſpur-veins, and the fore-toe veins, only let it be three days between the bleeding of the one toe and the other; then rub the ſores till they be raw and bleed, with a thin hay rope.

Having boiled half a pound of alum, in a quart of ſtale urine, and a quart of ſtrong brine, till they come to a quart, waſh the ſores well with the liquor; afterwards having procured the ſperm of frogs, in the month of *March*, and put them into a pot, and let it ſtand for a week, in that time it will look like oil: ſpread this, with what round things appear in it, on a cloth, and bind it on the ſores, repeating this ſeveral times. This has cured, when the diſeaſe has been thought incurable.

But the beſt of all medicines, and which ſcarcely ever fails to cure the ſcratches, is, if the horſe be of a ſtrong body and good ſtature, give him an ounce and a half of the beſt aloes you can get, pound it to a very fine powder, and mix it with very good butter, working and mixing it very well with a knife, then divide it into three parts, every one of which cover again with freſh butter, and make them as big as a good middling waſh-ball; give the horſe one of theſe in the morning faſting, upon the point of a ſtick, and a little while after ride him to warm his body, which will cauſe them to work the better: then bring him into the ſtable and keep him warm, and let him faſt two or three hours; when you are to give him a maſh of malt, let him eat a little hay, and then ride him ſoftly for two or three hours.

After the balls, pour down a horn or two of warm beer, and if you find him purge too much, ſo that it takes his ſtomach quite away, give him two wild-briar balls, pounded to powder, in a quart of warm beer, and it will ſoon ſtop it; or if you have not the briar-balls, boil ſome cinnamon, pepper, nutmeg, ginger, and bay-berries in the beer.

But if the horſe does not purge at all, ride him to ſome green corn that is not cut, or for want of that to ſome ſour graſs, and let him feed on it for about a quarter of an hour, then ride him gently home, ſet him up warm, and he will purge very kindly without danger.

SCULK, (with Hunters) a company, or a ſculk of foxes.

SCUT; the tail of a hare or rabbit.

SEA DRAGON; a ſort of fiſh that delights to ſwim in a ſtrong ſtream, called alſo a quaviver.

SEAMS, } IN HORSES, are certain clifts in their
SEYMS, } quarters, cauſed by the dryneſs of the foot, or by being ridden upon hard ground; they are eaſily perceived by the horſe's not ſetting his feet firm down in walking.

You may know them by looking upon the quarters of the hoofs on the inſide, which will be cloven from the coronet to the very ſhoe, quite through the horn, and ſuch quarters are commonly ſtraightened.

Some of theſe clefts do not riſe ſo high as the coronet, and therefore are the leſs dangerous; ſo that though they may be recovered, yet it is an imperfection in the feet, eſpecially in fat ones, which have a thin horn, where ſuch clefts frequently cauſe the ſcratch on the coronet.

Thoſe horſes that are troubled with ſeams, cannot work but on very ſoft ground, for upon ſtony hard pavements the blood will oftentimes iſſue out of the clefts.

For the cure of this malady, *ſee* FALSE QUARTER.

SEAN; a kind of long and large fiſhing-net.

SEAT; is the poſture or ſituation of a horſeman upon the ſaddle.

SEELING; a horſe is ſaid to feel, when upon his eye brows there grows white hairs, mixed with thoſe of his uſual colour, about the breadth of a farthing, which is a ſure mark of old age.

A horſe never feels till he is fourteen years old, and always before he is fifteen, or ſixteen at furtheſt; the light, ſorrel, and black, feel ſooner than others.

Horſe-courſers uſually pull out thoſe white hairs with pincers, but if there be ſo many that it cannot be done, without making the horſe looking bald and ugly, then they colour their eye-brows, that they may not appear old.

SELENDERS, are chaps or many ſores in the bending of the horſe's hough, as the mallenders are in the knees.

SEPARATERS. *See the* TEETH OF A HORSE.

SERCIL FEATHERS OF A HAWK; are the ſame that are called pinions in other fowls.

SERE; the yellow between the beak and the eyes of a hawk.

SERPEGER; the riding of a horſe in the ſerpentine way, as in a thread with waved turnings, like the poſture of a ſerpent's body.

SERPENTINE: a ſerpentine tongue is a friſking tongue that is always in motion, and ſometimes paſſes over the bitt, inſtead of keeping in the void ſpace, called the liberty of the tongue.

SET-FAST. *See* WARBLES.

SETONS, IN FARRIERY. The utility of theſe, in the opinion of Dr. DARWIN, is very great, from the conſideration that they facilitate the diſcharge of matter from abſceſſes, without the neceſſity of admitting much air, the influence of which upon an ulcer, is the cauſe of hectic fever. In reſpect to ſetons for horſes, we ſhall follow Mr. CLARKE, in preference to any other authority.

When tumours are taken in time, whether on the poll, withers, or back, and have not been previouſly bungled by common farriers, whoſe management in this caſe is often worſe than the diſeaſe, they may be carried off, and brought to heal by the diſcharge from ſetons, without any of the uſual butcherly and cauterizing work, or the leaſt blemiſh or loſs of ſubſtance.

Farriers are very apt to proceed with the knife, before the matter of the tumour is fully concocted, by which error they treble the difficulty, and period of the cure, and probably leave an indurated lump which is never effaced.

The ſeton-needle is a long, thin, ſharp inſtrument, pointed like a dart, with which the practitioner ought to be furniſhed, of various ſizes, from ſix to fifteen inches long, bended a little on the under ſide. The ſeton-cord, dipped in digeſtive ointment, being ſuited to the ſize of the tumour to be diſcuſſed, and the matter fluctuating from being ripe, the needle may be introduced at the upper end of the ſwelling, and the point conducted through the whole length, and brought out at the bottom, if neceſſary, and for the ſake of procuring a depending orifice, the inſtrument may be forced through the ſound muſcular fleſh. The ſeton being properly fixed, let it be tied together at both ends, or if the length will not admit of that, affix a button of wood at each end, by which it may be drawn upwards and downwards, as when tied, it may be turned in a circle. When there ſhall be no farther diſcharge, and the ſwelling ſhall have ſubſided, withdraw the ſeton, and heal the orifices with any ſpirituous application.

SETTER; a ſetting-dog to catch fowl with. *See* POINTER AND SETTING-DOG.

SETTING, (with Cock-fighters) is a term uſed after a cock has fought ſo long that he is not able to ſtand, or gives over fighting; then he is brought to the other cock, and ſet beak to beak, and if he does not ſtrike, the battle is loſt. *See* GAME-COCK.

SETTING-DOG; a dog trained up to the ſetting of partridges, *&c.* from a whelp, till he comes to perfection. You muſt pitch upon one that has a perfect and good ſcent, and is naturally addicted to the hunting of fowl, and this dog may be either a land-ſpaniel, water-ſpaniel, or a mongrel, between both, or indeed the ſhallow-flewed hound, tumbler, lurcher, or ſmall baſtard-maſtiff, but none is better than the land-ſpaniel; he ſhould be of a good nimble ſize, rather ſmall than thick, and of a courageous mettle, which though not to be diſcerned, being very young, yet you may very well know it from a right breed, which have been known to be ſtrong, luſty, and nimble rangers, of active feet, wanton tails, and buſy noſtrils.

Having made choice of a dog, begin to inſtruct him at four months old, or ſix at the fartheſt; and the firſt thing you ſhould do, is to make him loving to, and familiar with you; the better to effect this, let him receive his food, as much as can be, from no other hand but your own, and correct him rather with words than blows. When he is ſo far trained that he will follow none but yourſelf, and can diſtinguiſh your frown from your ſmile, and ſmooth words from rough, teach him to couch and lie down cloſe to the ground, firſt by laying him often on the ground, and crying lie cloſe, and then rewarding or chaſtizing him, according as he deſerves; in the next place, teach him to come creeping to you, and if he offer to raiſe his body or head, you muſt not only thruſt the riſing part down, but threaten him with an angry voice, which if he ſeems to ſlight, give him a ſmall jerk or two with a whip-cord laſh, and often renew his leſſons, till he become very perfect in them.

Then teach him to lead in a ſtring or line, and to follow you cloſe at your heels, without trouble or ſtraining his collar; after he has learned theſe things, take him into the field, and give him his liberty to range, but ſtill in obedience to your command, and if he commits a fault, give him due correction.

As ſoon as you ſee him come upon the haunt of any partridge (which may be known by his greater eagerneſs in hunting, and alſo by a kind of whimpering and whining voice, being very deſirous to open, but not daring) you ought then to ſpeak to him, bidding him take heed, or the like; but yet if he either ruſh in, or ſpring the partridges, or open, and ſo the partridge eſcapes, then he ought to be ſeverely corrected, and caſt him off again, and let him hunt in ſome place where you know a covey lies, and ſee whether he has mended his fault; and if you catch any with your nets, give him the heads, necks, and pinions, for his encouragement. For more, *ſee* POINTER.

SEVIL OF THE BRANCHES OF A BRIDLE; is a nail turned round like a ring, with a large head made faſt in the lower part of the branch, called *gargouille*. *See* BANQUET.

SEWEL, (with Hunters) that which is ſet or hanged up to keep a deer out of any place.

SHAMBRIER: is a long thong of leather, made faſt to the end of a cane or ſtick, in order to animate a horſe, and puniſh him if he refuſes to obey the rider.

SHANK IN A HORSE, is that part of the fore-leg, which is between the knee and ſecond joints, next to the foot, called a fetlock, or paſtern-joint.

SHAW-FOWL; an artificial bird made on purpoſe for fowlers to ſhoot at.

SHEDDING OF THE HAIR. *See* CAST.

SHEDDING OF THE SEED, (in Horſes) proceeds ſometimes from the abundance and rankneſs of it, and alſo from ſtrains, or being over-loaded, and ſometimes from an infirmity in the ſtones and ſeed-veſſels, not being able to retain the ſeed till it be digeſted and thickened.

When there is a diſcharge of ſeed dribbling frequently from the yard, plunge him every morning into cold water, and give him the following ball every night and morning:

Take *Venice* turpentine, one ounce; make it into a ball with a ſufficient quantity of bole ammoniac.

If this ſuffice not, and ulcers in the urethra are ſuſpected, inject a little of the following up into it two or three times a day:

Take balſam capivi, one ounce; diſſolve it with the yolk of an egg, then gradually add to it a pint of lime-water.

Some colts get a habit of rubbing their yard againſt their belly, until they ſhed their ſeed; for this there is no cure but caſtrating.

Or take a pound of *Venice* or common turpentine, and the ſame quantity of bole ammoniac, finely powdered, and as much wheat flour as will ſuffice to make it up into a ſtiff paſte; roll it about between your two hands, and break it off about the quantity of a ſmall

waſh-ball, and give the horſe three of them morning and evening, upon the end of a ſtick, or in a horn full of ſtrong beer, till the flux of ſeed ſtop, which will be effected once in ten days, or at moſt in a fortnight; but before you give him the balls, it will be proper to purge his reins very well, for this will not haſten, but perfect the cure.

For the ſhedding of ſeed, or colt evil; mix *Venice* turpentine and ſugar together, and give the horſe every morning a ball, until the flux be ſtopped.

If you add a little of the inner bark of oak, or the powder of an acorn, they will be very good.

This diſtemper happens commonly in *Auguſt*, and in very hot weather in *May*.

For the colt evil take the powder of anniſeeds, and leaves of betony in equal proportion, ſtamp them with white wine, till they come to be a very thick paſte; anoint the ſore with this, and it will cure that imperfection in the yard of the colt.

SHEEP. *See* MANAGEMENT.

SHELL-TOOTHED HORSE; is one that from four years, to old age, naturally, and without any artifice, bears a mark in all his fore-teeth, and there ſtill keeps that hollow place with a black mark, which we call the eye of a bean, inſomuch that at twelve or fifteen he appears with the mark of a horſe that is not yet ſix.

For in the nippers of other horſes, the hollow place is filled, and the mark diſappears towards the ſixth year, by reaſon of the wearing of the tooth.

About the ſame age, it is half worn out in the middling teeth, and towards the eighth year, it diſappears in the corner teeth; but after a ſhell-tooth horſe has marked, he marks ſtill equally in the nippers, the middling, and the corner teeth; which proceeds from this, that having harder teeth than the other horſes, his teeth do not wear, and ſo he does not loſe the black ſpot.

Amongſt the *Poliſh*, *Hungarian*, and *Croatian* horſes, we find a great many hollow-toothed horſes, and generally the mares are more apt to be ſuch than the horſes.

SHOEING OF HORSES. A work properly belonging to the ſmith; but as noblemen, gentlemen, and others, who are owners of horſes, ought to be able to know and diſtinguiſh, at leaſt in ſome degree, when it is well or ill done, it is judged neceſſary to be a little particular concerning it.

This art conſiſts in paring of the hoofs well, in the ſhoe's being made of good ſtuff, in the well faſhioning the web thereof, and well piercing the ſame, in fitting it to the horſe's hoof, in making nails of good ſtuff, and well ſhaping them; and laſtly, in the well driving and clinching of them.

But foraſmuch as horſes' hoofs are either perfect or imperfect, and theſe laſt alſo either rugged, long, crooked, or flat, and that the frushes may be broad, or the holes narrow, reſpect muſt be had unto them in this work.

Firſt then for the paring of the perfect foot, and the fore feet: the ſeat of the ſhoe muſt be pared as even and plain as may be, that it may ſit cloſe and not bear more upon one place than another, and more muſt be taken off the toes than the heels, for the heels muſt be higher than the toes, becauſe all the weight of a horſe's forebody lies upon the quarters and them.

Next, the ſhoe muſt be made of *Spaniſh* iron, with a broad web, fitting it to the hoof; and let the ſpangles be thicker and more ſubſtantial than any other part of the ſhoe; and alſo ſomething broad, ſo that the quarters on both ſides may appear without the hoof, about a ſtraw's breadth, to guard the coffin, which is the ſtrength of the hoof; and in piercing, pierce it from the quarter to the hard toe, but not backwards towards the heel, that the holes may be wider on the outſide than on the inſide, and that the circle of the piercing may be more diſtant from the edge of the toe than from the edge of the quarter where it begins, becauſe the hoof is thicker forwards than backwards, and therefore more hold to be taken; make the nails of the ſame ſtuff, with the heads ſquare, and not quite ſo broad beneath as above, but anſwering to the piercing-holes, ſo as the heads of the nails may enter in and fill the ſame, appearing ſomewhat above the ſhoe, and then they will ſtand ſure without ſhogging, and endure danger; and that which pierces them muſt be of the ſame ſize with the nails, that is, large above and ſmall beneath, which is uſually but little regarded by our ſmiths, who make the holes as wide on the inſide as on the outſide, and their nails of a great ſhouldering, by driving them over hard upon the nail-hole, that the heads, or rather necks of them cannot enter into the holes; whereas a good nail ſhould have no ſhouldering at all, but be made with a plain ſquare neck, ſo as it may juſtly fill the piercing-holes of the ſhoe, for otherwiſe the head of the nail ſtanding high, and the neck thereof being weak, it either breaks off, or elſe bends upon any light occaſion, ſo as the ſhoe ſtands looſe from the hoof, and is quickly loſt.

Again, the ſhanks of the nail ſhould be ſomewhat flat, and the points ſharp, without hollowneſs or flaw, and ſtiffer towards the head above than beneath; and when you drive, drive at the firſt with ſoft ſtrokes and a light hammer, till the nail is ſomewhat entered; and in ſhoeing fine and delicate horſes, their points muſt be greaſed with ſoft greaſe, that they may the more eaſily enter, and the two talon-nails muſt be drove firſt; then ſee whether your ſhoe ſtands right or not, which may be ſeen by holding the frush; if it is not right, it muſt be ſet to rights, and ſo another nail driven in; when that is done, let the horſe ſet down his foot again, and look round about it, to ſee whether it fits his foot in all places, and whether he treads juſt and even upon it, or otherwiſe; and if it appears that it does not furniſh every part equally, but that it appears more on one ſide than another, lift up the horſe's other foot, that ſo he may ſtand ſteadily on that foot, then ſtrike him on the hoof with the hammer on the ſide the ſhoe is ſcanty, and that will make it come that way.

When the ſhoe ſtands ſtraight and juſt, let all the reſt of the nails be drove in, to the number of ſix or eight, three or four on each ſide, ſo that their points may ſeem to ſtand in the outſide of the hoop, even and

juſt one by another, as it were in a circular line, and not out of order like the teeth of a ſaw; then cut them off and clinch them, ſo as the clinches may be hidden in the hoof, which, by cutting the hoof with the point of a knife, a litle beneath the appearance of the nail, you may eaſily do. This done, pare off the hoof with a rape, ſo as the edge of the ſhoe may ſeem round about it.

Now for ſhoeing imperfect hoofs. 1. As to the broad one, in paring, as much muſt be taken off the toe with a butteris as may be neceſſary, keeping it always under; but the heels and quarters muſt not be touched at all, unleſs it be to make the ſeat of the ſhoe plain, and that muſt be done as ſuperficially as may be, whereby the hoofs will always remain ſtrong: then make a good ſtrong ſhoe, with a broad web and broad ſponges, pierced as before, fitting to the pared hoof, and let it appear from the talon-nail towards the heel, a ſtraw's breadth without the hoof; and let it be in ſuch order, and with ſuch nails as appertain to the perfect hoof, ſaving that five nails muſt be ſet on the outſide of the hoof, and four on the inſide, becauſe he wears more without than within.

2. The rough and brittle hoof, which is generally weaker without than within, and for the moſt part better than the other hoofs; the heels may be more opened than the other, that ſo they may the more eaſily be ſtopped with cow-dung or other ointment, to keep them moiſt: the raggedneſs alſo on the outſide of the coffin, ſhould be filed away with a rape, and made ſmooth, and it muſt alſo be anointed oftener than other hoofs; but, as for the reſt of the hoof, it muſt be pared as the perfect one, for which the ſhoe muſt be made neither too light, but ſo that it may bear the horſe, nor yet too heavy, for then the hoof, being weak, will ſoon caſt it; and this ſhoe muſt be pierced to be ſet on with nails, five without and four within.

3. The long hoof, reckoned imperfect, may be helped by cutting away the toe, for the ſhorter foot a weak and tender leg has, the better: and the reſt of the hoof may be pared like the perfect one, for which hoof make as round a ſhoe as you can at the toe, that the breadth may take away the ill ſight of the length; if the foot be very narrow, let the ſhoe diſboard without the hoof, pierce the deeper, and ſet backward enough; becauſe ſuch kind of feet tread moſt on the heels, and let it be ſet on with eight nails like the perfect hoof.

4. The crooked hoof, to pare which, look on that ſide of the hoof which is higheſt and leaſt worn, then pare all that away, and make it equal with the lower ſide which is moſt worn, without touching the worn ſide at all, unleſs it be to make the ſeat of the ſhoe plain, and for the reſt, it muſt be pared like the perfect hoof; then, having an indifferent ſtrong ſhoe, with a broad web ready, let it be fitted to the foot, and pare it not till you have laid the ſhoe to the foot, to the intent you may pare it to the horſe's beſt advantage, which may be done if the ſcant ſide be pared; that is, moſtly the inſide, more towards the toe than the fuller and ſtronger ſide; and, where the hoof is weakeſt, there alſo the ſhoe muſt be ſtrongeſt; and ſet this on with nine nails, viz. five on the ſtrongeſt and four on the weakeſt ſide.

5. In that imperfect hoof, called the flat hoof, otherwiſe the promiſed hoof; make the ſeat of the ſhoe plain, and take ſomewhat off the toe, but the heel and ball of the toe muſt not be touched, but both of them left as ſtrong as they can be: and the ſhoe muſt be made with a very ſtrong web, for the more it covers the weak ſole the better; letting the mid part of the web that covers the ball of the foot be much thicker than the outſides where the piercings are; alſo let it be ſo hollow as to touch no part of the ball of the foot, and large and long enough in all places, ſo that the horſe may go at eaſe; and muſt be pierced round about the toe to favour the heels, and make ten holes for ten nails, *viz.* five on each ſide.

6. For the over-hollow hoof, and conſequently in imperfect ones; pare it round about, eſpecially the ſeat of the ſhoe, by the edges, that, in ſo doing, the hollowneſs thereof within may not be ſo deep, but ſhallower than it was before, and let it always be kept moiſt with ſtopping it, for fear of hoof-binding, obſerving as even a hand as may be in your paring, in all points like unto the perfect hoof; and in like manner make for it ſuch a ſhoe in order and form, as was ſaid before, to ſerve the perfect hoof.

7. As to broad fruſhes, which cauſe weak heels, there is little or no need of paring at all; wherefore the toe muſt only be pared, and alſo the ſeat of the ſhoe, as much as ſhall be judged neceſſary to the even ſtanding of the ſhoe, leaving the heels as may be: but for this ſort of hoof, the ſhoe muſt be ſtronger towards the heel than towards the toe: and alſo let the web be ſomewhat broad towards the heels, to ſave them from the ground; and it muſt be ſet on with nine nails, becauſe it is moſt commonly a great foot; but, in all other reſpects, let it be made like the ſhoe for the perfect hoof.

8. The imperfect hoof, with narrow heels, muſt have the toe pared ſhort, and the ſeat of the ſhoe muſt be made plain and fair, and open only ſo much that there may be ſome little ſpace between the fruſh and the heel, for the leſs you take off the heel, the better: for this a light ſhoe muſt be made, with a broad web, and the ſponges muſt be ſo broad as almoſt to meet together, to defend the heel from the ground, and pierce it all towards the toe, ſparing the heel as much as may be: you muſt ſee that the ſhoe is long enough towards the holes; let it be put on with eight nails, like the ſhoe that fits the perfect hoof.

9. Now as to paring and ſhoeing of the hinder feet, which is quite contrary to the fore-feet, for the weakeſt part of the hinder feet is the toe, and therefore in paring them, you muſt always pare more than the heels; but in all other points obſerve the order of paring according to the perfections or imperfections of the hoofs, before obſerved.

Then in ſhoeing; it muſt be here ſtronger at the toe, and pierced nigher the heel than the toe, and the outſide of the ſhoe ſhould be made with a calkin, not over-high,

high, but let the other ſponge be agreeable to the calkin, that is, as high in a manner as the calkin, which is to keep the horſe from ſliding; but then it muſt not be ſharp-pointed, but rather flat, and handſomely turned upwards, which is the beſt ſort of calkin.

But in caſe of a falſe quarter, if the horſe halts, then make him a ſhoe fitting to his foot, tacking it on the quarter on that ſide the falſe quarter is; but, if he does not halt, then make it with a button or ſhouldering, on the inſide of the ſhoe, and next to the ſole of the foot, ſomewhat diſtant from the falſe quarter, towards the toe, which will defend the ſore place, that the ſhoe touch it not; and you may travel your horſe where you pleaſe with this ſort of ſhoe.

10. For the hoofs that interfere; as they are moſt commonly higher on the outſide than on the inſide, you ſhould therefore take off the outſide with a butteris, to the intent that the inſide may be ſomewhat higher, if it will be, than the outſide; and then making a ſhoe for his foot, which ſhould be thicker on the inſide than on the outſide, it muſt never have any calkin, for that will make the horſe tread awry, and the ſooner to interfere.

Laſtly, For paring and ſhoeing the foot that is hoof-bound; firſt pare the toe as ſhort as may be, and the ſole ſomewhat thin; then open the heels well, and make him a half-ſhoe, like a half-moon.

Every day's experience ſhews the great increaſe of lame horſes in this kingdom, which is remarked by foreigners as a diſgrace peculiar to this country.

From the remarks which the author has had occaſion to make, for upwards of twenty-four years paſt, not one horſe in an hundred is liable to be lame above the knee: fifteen out of twenty are abſolutely lame in the feet, and that from various cauſes; ſuch as corns, thruſhes, ſand-cracks, relaxations, contractions, or by being pricked or bound by nail, wounded by channel nail, bruiſed by ſhoe or ſtone; or ſurbated by hard riding; or by ſluicing horſes, when heated, into a pond of cold water, thus chilling the blood, and cauſing a ſtagnation of it at the extremities, the feet, thereby preventing the blood from performing its due return by circulation; as alſo by means of the faulty and ill-ſhaped convexity of the ſhoes, eſpecially upon the declivites of the ſtreets, and when the roads are hard; together with the great increaſe of motion, ariſing between two ſuch hard bodies as the ſhoe and the ground, not unlike ſtriking the flint againſt the ſteel; ſtrokes which produce actual fire. When therefore a horſe goes at the rate of twelve miles an hour, the ſhoe from the friction againſt the ground, muſt acquire a very great degree of heat, which cannot fail to be communicated to the internal parts of the foot.

Moſt of the above complaints affect the fore-feet, the real cauſes of which I ſhall endeavour to explain; and ſhall lay down ſome cautions and obſervations, in what manner to guard againſt thoſe cauſes, and thus prevent their effects and conſequences.

The firſt ſtep we take to deſtroy the happineſs of this noble animal, is to confine him to a hot element, the drought of the ſtable, inſtead of a cold and moiſt one, the earth; in diametrical oppoſition to the dictates of nature. By which means the blood is kept up to a degree of immoderate heat, that dries up all the nouriſhment which the nervous parts of the foot require.

The ſtall, in which the horſe is to ſtand, ſhould be on a level, rather gradually deſcending in the middle, ſo that the damp and ſalts of his urine may riſe to his fore-feet; in which caſe he would reap that benefit, both ſtanding and lying, which nature actually requires, and ſtopping and greaſing would of courſe be ſuperſeded. The method laid down being the moſt natural, the fore-feet would benefit in the ſame manner that the hinder-feet do, and grow as faſt. The farriers would have no occaſion to add fire, or to uſe any injudicious means, to ſoften the fore-feet, for the greater eaſe in paring. The fore-feet would recover their elaſticity, and dilate themſelves in the ſame manner as the hinder-feet do. For want of which a contraction of the foot is brought on, vulgarly called a dry-founder, which can be compared to nothing more juſtly than the gout in human beings; a diſeaſe deemed incurable. The dealers term it foreneſs or groggineſs.

In all ſuch caſes, the foot muſt be kept as cool as poſſible, and the toe kept very ſhort; and if ſtrong on the front, as all generally are, it muſt be weakened with the raſp; and the ſhoe is to be concave, ſhort, and circular, that the horſe may tread on the ſpongy part of the foot, which nature allotted him to tread upon, called the frog, on which the tendons reſt, and which itſelf ſhould reſt on the ground. I mean he ſhould tread in the ſhoe, juſt as he would tread on the extreme horny part of the foot and frog, without the ſhoe. This will afford the requiſite aſſiſtance to carry on the free circulation of the blood in the contracted parts of the foot, which was before impeded.

This concave ſhoe will prevent the horſe from ſliding or falling, on the convexity or declivity of the ſtreets, or even on the ſmoothеſt ſurface; the frog being unguarded and expoſed ſerves for a ketch or ſtop.

Our anceſtors uſed to guard the weakeſt part of the foot by covering the toe; and then the horſes were all in a ſtate of ſoundneſs. How we came to be ſo much in the wrong, ſeems altogether unaccountable. We have taken it into our heads to guard the heels and frog, by which means we have crippled our beſt horſes. The heels, frog, and bars, of the foot, are naturally ſufficiently guarded; and our method is a ſure one to deſtroy them, by unreaſonably deviating from that uſed by our anceſtors.

When a foot becomes too much relaxed, too weak, and too much dilated, called a wet-founder, a fleſhy ſole, and termed by the faculty a pumice-foot; in that caſe, the convex ſhoe is requiſite. The horſe ſhould ſtand in a dry ſtall; and, by the principle on which this ſhoe is formed, the foot will be contracted; by which means it will grow ſtrong, the membranous ſubſtance will fall or ſubſide, and the foot recover in ſtrength, and keep in a ſtate of perfection.

It is ever to be obſerved as a certain rule, that when a horſe's

a horſe's foot inclines to grow ſtrong it grows ſmall: on the contrary, when inclining to grow large, it grows weak. All which is owing to too much or too little flexibility in the different feet; therefore oppoſite ſhoes are, in thoſe caſes, to be oppoſed to ſuch oppoſite diſorders.

In the caſe of other feet which, by nature, are neither concave nor convex, and which I call neither too ſtrong nor too weak, I recommend a flat ſhoe, of ſuch a conſtruction as not to admit of contraction or dilatation. This I call a preventive ſhoe.—Was ſuch a ſhoe to be uſed at three or four years old, it would prevent any variation in the foot of a horſe during life, unleſs it happened from ſome unforeſeen accident.

The great nicety required in ſhoeing horſes, at this day, calls for much greater mechanical heads than thoſe uſually employed: beſides more time to do the buſineſs in. And though the advance in ſhoeing, within theſe twenty years paſt, is far from being adequate to the labour, yet if the journeyman was not compelled to work ſo hard, he would require a leſs quantity of ſtrong liquors to enable him to ſupport the fatigue, and would be leſs ſubject to be intoxicated, to the loſs of his reaſon and judgment; in which ſtate it is impoſſible he ſhould be capable to judge for a dumb animal.

If the labourer was better paid, a different ſet of people from that low ignorant claſs, now generally employed, would be encouraged to become good artiſts, and to excel in the mechanical branch; to take greater pains, and not hurry over their buſineſs in the manner generally practiſed; from which horſes may juſtly date all their ſufferings, and, if capable of utterance, could point them out far better than the generality of thoſe who now judge for them.

Suppoſe a horſe, by moderate labour, wears a ſet of ſhoes every month, and the employer was to pay ſix pence extraordinary for the greater time requiſite in ſhoeing; I am fully perſuaded it would anſwer every purpoſe the owner of the beaſt could wiſh for.

The deviation from juſtneſs, and the unevenneſs of that ſide of the ſhoe which goes next the foot, with its unequal bearing, are the cauſes which deſtroy all the flat-footed or oyſter-footed horſes, as I call them, faſter than they can poſſibly grow, it being out of the power of any number of nails to keep the ſhoe and foot together, ſo as not to admit of any action between them; the water and gravel coming between the foot and ſhoe alſo grind the foot away, where the friction is greateſt, as if held againſt the face of a grinding-ſtone. And then the owner condemns the farrier for paring away the horſe's heels; who would be glad to add more foot, where it was wanting, if his ſkill could reach ſo far, and thus ſave himſelf much trouble in convexing, vulgarly called boxing or hollowing, the ſhoe, and that to a very great degree of untruth. When once the foot gets below its ſurface, it very rarely if ever recovers itſelf whilſt at labour; the ſhoes, in that caſe, are to be taken off, and the horſe is to be turned out into his natural element for a proper time, that he may recover his feet; or ſome dexterous artiſt muſt be employed to diſplay his judgment and ſkill upon him.

The great multiplicity of nails generally uſed, making ſo many holes in the hoof, in a great meaſure contributes to deſtroy it faſter than it can poſſibly grow. It is out of the power of any number of nails to reſiſt the greater preſſure of a horſe, and of the burthen he carries, unleſs the ſhoe be made and fitted to a principle of truth. For ſuch ſhoes I recommend ſix nails only, in the caſe of ſlight ſaddle-horſes; eight for a chaiſe-horſe; and ten for a coach or cart horſe.

Theſe nails are of a different conſtruction from the nails commonly uſed, as one of them will hold better than two of the common ſort. I call them concave nails, made without any ſhoulder: they drive down in the hole like a wedge, and are extremely well adapted to ſhoes made thick on the outſide edge, with a counter-ſunk-hole. And the horſe at the ſame time, inſtead of treading on the convexity or inward edge of the ſhoe, by which means he is apt to ſtrain the nails, will be obliged to tread on the top of the head of the nail, ſo that there will be no ſtreſs on the clinch of the nail. This will be a means of preſerving the hoof, the ſupport of the fabric, as the foundation is of a houſe; which, if not kept up, the fabric muſt totter and fall. The foot is preſerved by encouraging its growth, as has been already hinted; that is, if made to ſtand cold and moiſt, inſtead of hot and dry.

Thus we have conſidered the diſorders incident to the foot of a horſe, their cauſes, their ſymptoms, and the ſeat in which they are lodged, with the effects they produce.

Let us to this ſubjoin, as highly neceſſary, an enumeration of the parts of the foot.

A horſe's feet are the extremities of his body, ſubſervient to its ſupport and motion; a receptacle of muſcular inſertions, of blood-veſſels, and nerves, which terminate there.

The principal parts of the foot which claim our attention, and about which the moſt conſiderable branch of the art of farriery is employed, are the following: the hoof, the ſole, the frog, the heels, the coronet, the coffin-bone, the perioſteum, the ſuperior cartilages, the cartilage of the coffin-bone, the cartilage of the head of the little paſtern-bone, the two cartilages of the heel-bone, the annular ligament, the ligaments of the little paſtern, the tranſverſe ligaments, the upper and lower muſcles of the coffin-bone, the tendon of the great extender, the fat and mucilaginous glands, the arteries, the veins, and the nerves.

Learned men differ in opinion with reſpect to the matter of which the horſe's hoof is formed, which anſwers to the nails of a man's fingers, or toes of the feet, deſigned by nature as a proper defence for the extremities. HIPPOCRATES ſuppoſed the hoof to be formed from a glutinous matter, parched and dried by heat, after being driven to the extreme parts. EMPEDOCLES thought that the hoof is made of the extremities of the nerves, and that therefore when theſe drop off, it is a ſign of great weakneſs. ARISTOTLE is of opinion, that the hoofs are produced from adventitious aliment. And to conclude, the anatomiſt COLUMBUS thinks, that the

parts

parts juſt mentioned take their origin, partly from the ſkin, and partly from the tendons of the muſcles, which move the fingers and toes, and that they are increaſed in the ſame manner as the teeth: namely, by oppoſition of parts to the roots.

With reſpect to the hoofs of horſes, whatever be the original matter out of which they are formed, their growth ſeems to be carried on by a continual oppoſition of parts to their roots, ſucceſſively driving before them the particles that preceded. They are of an intermediate ſubſtance between bone and griſtle: not ſo hard as bone, for then they would be apt to ſnap and break; nor yet ſo ſoft as griſtle, as in that caſe they could not ſupport the weight of the body of a horſe; much leſs bear the fatigue of travelling amidſt ſtones, &c. They are therefore of a horny ſubſtance, devoid of any feeling, growing pretty firmly to the part included by them, and faſtened to the coffin-bone by a ligament that proceeds from their top or root, which root the ſkin alſo encompaſſes in ſome meaſure; underneath them lie many twigs of nerves, and tendons of muſcles, which run even to the very bottom of the hoof, or ſole of the foot; on pricking or wounding which with a nail, or the like, or even when but bruiſed by riding on hard roads, the horſe immediately diſcovers his being hurt; a circumſtance which ſhould induce the maſter of every horſe to avoid as much as poſſible hard and ſtony roads, and to keep his feet cool, moiſt, and well ſhod.

Lord Pembroke obſerves, "the only ſyſtem of farriers is to ſhoe in general with exceſſive heavy and clumſy ill-ſhaped ſhoes, and very many nails, to the total deſtruction of the foot. The cramps they annex tend to deſtroy the bullet, and the ſhoes made in the ſhape of a walnut-ſhell, prevent the horſe's walking upon the firm baſis which God has given him for that end, and thereby oblige him to ſtumble and fall. They totally pare away alſo and lay bare the inſide of the animal's foot with their deteſtable butterices, and afterwards put on very long ſhoes, whereby the foot is hindered from having any preſſure at all upon the heels, which preſſure otherwiſe might ſtill perchance, notwithſtanding their dreadful cutting, keep the heels properly open, and the food in good order. The frog ſhould never be cut out; but, as it will ſometimes become ragged, it muſt be cleaned every now and then, and the ragged pieces pared off with a knife. In one kind of foot, indeed, a conſiderable cutting away muſt be allowed of, but not of the frog; we mean that very high feet muſt be cut down to a proper height; becauſe, if they were not, the frog, though not cut, would ſtill be ſo far above the ground as not to have any bearing upon it, whereby the great tendon muſt inevitably be damaged, and conſequently the horſe would go lame.

"The weight of ſhoes muſt greatly depend on the quality and hardneſs of the iron. If the iron be very good, it will not bend; and, in this caſe, the ſhoes cannot poſſibly be made too light: care, however, muſt be taken that they be of a thickneſs ſo as not to bend, for bending would force out the nails, and ruin the hoof. That part of the ſhoe which is next the horſe's heel, muſt be narrower than any other (as is ſeen in the copper-plate for this article) that ſtones may be thereby prevented from getting under it, and ſticking there; which otherwiſe would be the caſe, becauſe the iron, when it advances inwardly beyond the bearing of the foot, forms a cavity, wherein ſtones being lodged would remain, and, by preſſing againſt the foot, lame the horſe. The part of the ſhoe which the horſe walks upon ſhould be quite flat, and the inſide of it likewiſe; only juſt ſpace enough being left next the foot to put in a picker (which ought to be uſed every time the horſe comes into the ſtable) and alſo to prevent the ſhoe's preſſing upon the ſole. Four nails on each ſide hold better than a greater number, and keep the hoof in a far better ſtate. The toe of the horſe muſt be cut ſhort, and nearly ſquare (the angles only juſt rounded off) nor muſt any nails be driven there; this method prevents much ſtumbling, eſpecially in deſcents, and ſerves, by throwing nouriſhment to the heels, to ſtrengthen them: on them the horſe ſhould in ſome meaſure walk, and the ſhoe be made of a proper length accordingly; by this means narrow heels are prevented, and many other good effects produced. Many people drive a nail at the toe, but it is an abſurd practice. Leaving room to drive one there, cauſes the foot to be of an improper length, and moreover, that part of the hoof is naturally ſo brittle, that, even when it is kept well greaſed, the nail there ſeldom ſtays in, but tears out and damages the hoof. That the directions for ſhoeing a proper length may be more clear and intelligible, we have annexed a draught of a foot ſhod a proper length ſtanding on a plain ſurface, and with it a draught of the right kind of ſhoe.

"In wet, ſpongy, and ſoft, ground, where the foot ſinks in, the preſſure upon the heels is of courſe greater than on hard ground; and ſo indeed it ſhould be upon all accounts. The hinder feet muſt be treated in the ſame manner as the fore ones, and the ſhoes the ſame; except in hilly and ſlippery countries, they may not improperly be turned up; the fore-ſhoes are of no ſervice, and are certain ruin to the fore legs, eſpecially to the bullets. In deſcending hills, cramps are apt to throw horſes down, by ſtopping the fore-legs out of their proper baſis and natural bearing, when the hinder ones are rapidly preſſed: which unavoidably muſt be the caſe, and conſequently cannot but puſh the horſe upon his noſe. With them on a plain ſurface a horſe's foot is thrown forwards on the toe, out of its proper bearing, which is very liable to make the horſe ſtumble. The notion of their utility in going up hills is a falſe one. In aſcending, the toe is the firſt part of the foot which bears on or takes hold of the ground, and whether the horſe draws or carries, conſequently the buſineſs is done before the part where the cramps are comes to the ground. Ice-nails are preferable to any thing to prevent ſlipping, as alſo to help horſes up hill, the moſt forward ones taking hold of the ground early, conſiderably before the heels touch the ground: they muſt be ſo made as to be, when driven in, ſcarcely half an inch above the ſhoe, and alſo have four ſides ending at the top in a point. They are of great ſervice to prevent ſlipping on all kinds of places, and by means of them a horſe is not

thrown out of his proper baſis. They muſt be made of very good iron; if they are not, the heels of them will be perpetually breaking off. From the race horſe to the cart-horſe the ſame ſyſtem of ſhoeing ſhould be obſerved; the ſize, thickneſs, and weight, of them only ſhould differ. The ſhoe of a race-horſe muſt of courſe be lighter than that of a ſaddle horſe; that of a ſaddle-horſe lighter than that of a coach or bat-horſe; and theſe laſt more ſo than a cart, waggon, or artillery, horſe. At preſent all ſhoes in general are too heavy; if the iron is good, ſhoes need not be ſo thick as they are now generally made. The utmoſt ſeverity ought to be inflicted on all thoſe who clap ſhoes on hot, as this unpardonable lazineſs in farriers in making feet thus fit ſhoes, inſtead of ſhoes fitting feet, dries up the hoof, and utterly deſtroys them. Frequent removals of ſhoes are detrimental and tear the foot, though ſometimes they are very neceſſary; this is an inconvenience which half ſhoes are liable to, for the end of the ſhoe, being very ſhort, is apt to work ſoon into the foot, and conſequently muſt then be moved."

In a late treatiſe on this ſubject by Mr. CLARK of *Edinburgh*, the common form of ſhoes and method of ſhoeing are, with great appearance of reaſon, totally condemned, and a new form and method recommended, which ſeem founded on rational principles, and to have been confirmed by experience.

Common method. "In preparing the foot for the ſhoe (our author obſerves) the frog, the ſole, and the bars or binders, are pared ſo much that the blood frequently appears. The ſhoe by its form (being thick on the inſide of the rim, and thin upon the outſide) muſt of conſequence be made concave or hollow on that ſide which is placed immediately next the foot, in order to prevent its reſting upon the ſole. The ſhoes are generally of an immoderate weight and length, and every means is uſed to prevent the frog from reſting upon the ground, by making the ſhoe-heels thick, broad, and ſtrong, or riſing cramps or caukers on them.

"From this form of the ſhoe, and from this method of treating the hoof, the frog is raiſed to a conſiderable height above the ground, the heels are deprived of that ſubſtance which was provided by nature to keep the cruſt extended at a proper wideneſs, and the foot is fixed as it were in a mould.

"By preſſure from the weight of the body, and reſiſtance from the outer edges of the ſhoe, the heels are forced together, and retain that ſhape impreſſed upon them, which it is impoſſible ever after to remove: hence a contraction of the heels, and of courſe lameneſs. But farther,

"The heels, as has been obſerved, being forced together, the cruſt preſſed upon the proceſſes of the coffin and extremities of the nut bone; the frog being then confined, and raiſed ſo far from the ground that it cannot have that ſupport upon it which it ought to have, the circulation of the blood is impeded, and a waſting of the frog, with frequently that of the whole foot, enſues. Hence proceed all thoſe diſeaſes of the feet known by the names of foundered, hoof-bound, narrow-heels, running-thruſhes, corns, high ſoles, &c.

"I have likewiſe frequently obſerved, from this compreſſion of the internal parts of the foot, a ſwelling of the legs immediately above the hoof, attended with great pain and inflammation, with a diſcharge of thin, ichorous, fetid, matter; from which ſymptoms it is often concluded, that the horſe is in a bad habit of body (or what is termed a greaſe falling down) and muſt therefore undergo a courſe of medicine, &c.

"The bad effects of this practice are ſtill more obvious upon the external parts of the hoof. The cruſt towards the toe, being the only part of the hoof free from compreſſion, enjoys a free circulation of that fluid neceſſary for its nouriſhment, and grows broader and longer; from this extraordinary length of the toe, the horſe ſtumbles in his going, and cuts his legs. The ſmaller particles of ſand inſinuate themſelves between the ſhoe and the heels, which grind them away, and thereby produce lameneſs. All this is entirely owing to the great ſpring the heels of the horſe muſt unavoidably have upon the heels of a ſhoe made in this form.

"This concave ſhoe in time wears thin at the toe, and, yielding to the preſſure made upon it, is forced wider, and of courſe breaks off all that part of the cruſt on the outſide of the nails.

"Inſtances of this kind daily occur, inſomuch that there hardly remains cruſt ſufficient to fix a ſhoe upon.

"It is generally thought that the broader a ſhoe is, and the more it covers the ſole and frog, a horſe will travel the better. But, as has been formerly remarked, the broader a ſhoe is of this form, it muſt be made the more concave, and, in conſequence, the contracting power upon the heels muſt be the greater. It is likewiſe to be obſerved that, by uſing the ſtrong broad-rimmed concave ſhoes in the ſummer-ſeaſon, when the weather is hot and the roads very dry and hard, if a horſe is obliged to go faſt, the ſhoes, by repeated ſtrokes (or frictions) againſt the ground, acquire a great degree of heat, which is communicated to the internal parts of the feet; and, together with the contraction upon the heels occaſioned by the form of the ſhoe, muſt certainly cauſe exquiſite pain. This is frequently ſucceeded by a violent inflammation in the internal parts of the hoof, and is the cauſe of that diſeaſe in the feet ſo fatal to the very beſt of our horſes, commonly termed a founder. This is alſo the reaſon why horſes, after a journey or hard ride, are obſerved to ſhift their feet ſo frequently, and to lie down much.

"If we attend further to the convex ſurface of this ſhoe, and the convexity of the pavement upon which horſes walk, it will then be evident that it is impoſſible for them to keep their feet from ſlipping in this form of ſhoe, eſpecially upon declivities of ſtreets.

"It is alſo a common practice to turn up the heels of the ſhoes into what is called cramps or caukers, by which means the weight of a horſe is confined to a very narrow ſurface, viz. the inner round edge of the ſhoe-rim and the points or caukers of each heel, which ſoon wear round and blunt; beſides they, for the moſt part, are made by far too thick and long. To this cauſe we muſt likewiſe aſcribe the frequent and ſudden lameneſs

neſs horſes are ſubject to in the legs, by twiſting the ligaments of the joints, tendons, &c.

"I do not affirm that caukers are always hurtful, and ought to be laid aſide: on the contrary, I grant that they, or ſome ſuch-like contrivance, are extremely neceſſary, and may be uſed with advantage upon flat ſhoes where the ground is ſlippery, but they ſhould be made thinner and ſharper than thoſe commonly uſed, ſo as to ſink into the ground, otherwiſe they will rather be hurtful than of any advantage.

"The *Chineſe* are ſaid to account a ſmall foot an ornament to their women, and, for that purpoſe, when young, their feet are confined in ſmall ſhoes. This no doubt produces the deſired effect, but muſt neceſſarily be very prejudicial to them in walking, and apt to render them entirely lame.

"This practice, however, very much reſembles our manner of ſhoeing horſes; for, if we looked upon it as an advantage to them to have long feet, with narrow heels, and ſuppoſing we obſerved no inconvenience to attend it, we could not poſſibly uſe more effectual means to bring it about, than by following the method already deſcribed.

"In ſhoeing a horſe, therefore, we ſhould in this, as in every other caſe, ſtudy to follow nature; and certainly that ſhoe which is made of ſuch a form as to reſemble as near as poſſible the natural tread and ſhape of the foot, muſt be preferable to any other.

"But it is extremely difficult to lay down fixed rules with reſpect to the proper method to be obſerved in treating the hoofs of different horſes: it is equally difficult to lay down any certain rule for determining the preciſe form to be given to their ſhoes. This will be obvious to every judicious practitioner, from the various conſtructions of their feet, from diſeaſe, and from other cauſes that may occur; ſo that a great deal muſt depend upon the diſcretion and judgment of the operator, in proportioning the ſhoe to the foot, by imitating the natural tread, to prevent the hoof from contracting a bad ſhape.

"In order, therefore, to give ſome general idea of what may be thought moſt neceſſary in this matter, I ſhall endeavour to deſcribe that form of ſhoe, and method of treating the hoofs of horſes, which from experience I have found moſt beneficial.

"Proper method. It is to be remembered, that a horſe's ſhoe ought by no means to reſt upon the ſole, otherwiſe it would occaſion lameneſs; therefore it muſt reſt entirely upon the cruſt, and, in order that we may imitate the natural tread of the foot, the ſhoe muſt be made flat, if the height of the ſole does not forbid it; it muſt be of an equal thickneſs all around the outſide of the rim, and, on the part of it which is to be placed immediately next the foot, a narrow rim or margin is to be formed, not exceeding the breadth of the cruſt upon which it is to reſt, with the nail-holes placed exactly in the middle; and, from this narrow rim, the ſhoe is to be made gradually thinner towards its inner edge.

"The breadth of the ſhoe is to be regulated by the ſize of the foot, and the work to which the horſe is accuſtomed; but, in general, it ſhould be made rather broad at the toe, and narrow towards the extremity of each heel, in order to let the frog reſt with freedom upon the ground. The neceſſity of this has been already ſhewn.

"The ſhoe being thus formed and ſhaped like the foot, the ſurface of the cruſt is to be made ſmooth, and the ſhoe fixed on with eight, or at moſt ten nails, the heads of which ſhould be ſunk into the holes, ſo as to be even with the ſurface of the ſhoe. The ſole, frog, and bars, as I have already obſerved, ſhould never be pared, farther than taking off what is ragged from the frog, and any excreſcences or inequalities from the ſole. And it is very properly remarked by Mr. OSMER, 'That the ſhoe ſhould be made ſo as to ſtand a little wider at the extremity of each heel than the foot itſelf; otherwiſe, as the foot grows in length, the heel of the ſhoe in a ſhort time gets within the heel of the horſe; which preſſure often breaks the cruſt, and produces a temporary lameneſs, perhaps a corn.'

"This method of ſhoeing-horſes I have followed long before Mr. OSMER's treatiſe on that ſubject was publiſhed; and for theſe ſeveral years paſt I have endeavoured to introduce it into practice.

"But ſo much are farriers, grooms, &c. prejudiced in favour of the common method of ſhoeing and paring out the feet, that it is with difficulty they can even be prevailed upon to make a proper trial of it.

"They cannot be ſatisfied unleſs the frog be finely ſhaped, the ſole pared, and the bars cut out, in order to make the heels appear wide. This practice gives them a ſhow of wideneſs for the time; yet that, together with the concave form of the ſhoe, forwards the contraction of the heel, which, when confirmed, renders the animal lame for life.

"In this flat form of ſhoe, its thickeſt part is upon the outſide of the rim, where it is moſt expoſed to be worn; and, being made gradually thinner towards its inner edge, it is therefore much lighter than the common concave ſhoe: yet it will laſt equally as long, and with more advantage to the hoof; and, as the frog or heel is allowed to reſt upon the ground, the foot enjoys the ſame points of ſupport as in its natural ſtate. It muſt therefore be much eaſier for the horſe in his way of going, and be a means of making him ſurer-footed. It is likewiſe evident, that, from this ſhoe, the hoof cannot acquire any bad form; when, at the ſame time, it receives every advantage that poſſibly could be expected from ſhoeing. In this reſpect it may very properly be ſaid, that we make the ſhoe to the foot, and not the foot to the ſhoe, as is but too much the caſe in the concave ſhoes, where the foot very much reſembles that of a cat's fixed in a walnut-ſhell.

"It is to be obſerved, that the hoofs of young horſes, before they are ſhod, for the moſt part are wide and open at the heels, and that the cruſt is ſufficiently thick and ſtrong to admit of the nails being fixed very near the extremities of each. But, as I have formerly remarked, from the conſtant uſe of concave ſhoes, the cruſt of this part of the foot grows thinner and weaker, and, when the nails are fixed too far back, eſpecially upon the inſide, the horſe becomes lame; to avoid this,

they are placed more towards the fore-part of the hoof, which cauſes the heels of the horſe to have the greater ſpring upon the heels of the ſhoe, which is ſo detrimental as to occaſion lameneſs; whereas, by uſing this flat form of ſhoe, all theſe inconveniences are avoided, and, if the hoofs of young horſes, from the firſt time that they were ſhod, were continued to be treated according to the method here recommended, the heels would always retain their natural ſtrength and ſhape.

"By following this flat method of ſhoeing, and manner of treating the hoofs, ſeveral horſes now under my care, that were formerly tender-footed and frequently lame while ſhod with broad concave ſhoes, are now quite ſound, and their hoofs in as good condition as when the firſt ſhoes were put upon them; in particular, the horſe that wore the broad concave ſhoes now goes perfectly ſound in the open narrow kind of ſhoes.

"If farriers conſidered attentively the deſign of ſhoeing horſes, and would take pains to make themſelves acquainted with the anatomical ſtructure of the foot, they would be then convinced that this method of treating the hoofs, and this form of ſhoe, is preferable to that which is ſo generally practiſed.

"It has been alledged, that in this form of ſhoe horſes do not go ſo well as in that commonly uſed. This objection will eaſily be laid aſide, by attending to the following particulars. There are but few practitioners that can or will endeavour to make this ſort of ſhoe as it ought to be. The iron, in forming it, does not ſo eaſily turn into the circular ſhape neceſſary, as in the common ſhoe; and perhaps this is the principal reaſon why farriers object to it, eſpecially where they work by the piece. And, as many horſes that are commonly ſhoed with concave ſhoes have their ſoles conſiderably higher than the cruſt, if the ſhoe is not formed, or if it is made too flat, it muſt unavoidably reſt upon the ſole, and occaſion lameneſs.

"The practice of paring the ſole and frog is alſo ſo prevalent, and thought ſo abſolutely neceſſary, that it is indiſcriminately practiſed, even to exceſs, on all kinds of feet: and while this method continues to be followed, it cannot be expected that horſes can go upon hard ground (on this open ſhoe) with that freedom they would do if their ſoles and frogs were allowed to remain in their full natural ſtrength.

"Experience teaches us, that, in very thin ſoled ſhoes, we feel an acute pain from every ſharp-pointed ſtone we happen to tread upon. Horſes are ſenſible of the ſame thing in their feet, when their ſoles, *&c.* are pared too thin; hence they who are prejudiced againſt this method, without ever reflecting upon the thin ſtate of the ſole, *&c.* are apt to condemn it, and draw their concluſions more from outward appearances than from any reaſoning or knowledge of the ſtructure of the parts. From a due attention likewiſe to the ſtructure of a horſe's foot in a natural ſtate, it will be obvious, that paring away the ſole, frog, *&c.* muſt be hurtful, and in reality is deſtroying that ſubſtance provided by nature for the defence of the internal parts of the foot, ſo that it muſt be more liable to accidents from hard bodies, ſuch as ſharp ſtones, nails, glaſs, *&c.* From this conſideration we ſhall likewiſe find, that a narrow piece of iron adapted to the ſhape and ſize of the foot is the only thing neceſſary to protect the cruſt from breaking or wearing away; the ſole, *&c.* requiring no defence if never pared.

"There is one obſervation I would farther make, which is, that the ſhoe ſhould be made of good iron, well worked, or what ſmiths call hammer-hardened; that is, beat all over lightly with a hammer, when almoſt cold. The *Spaniſh* and *Portugueſe* farriers uſe this practice greatly, inſomuch that people, who have ſeen them at work, have reported that they form their horſes ſhoes without heating them in the fire as we do. It is well known, that heating of iron till it is red ſoftens it greatly; and when ſhoes thus ſoftened are put upon horſes feet, they wear away like lead. But, when the ſhoes are well hammered, the iron becomes more compact, firm, and hard, ſo that a well-hammered ſhoe, though made conſiderably lighter, yet will laſt as long as one that is made heavier; the advantage of which is obvious, as the horſe will move his feet with more activity, and be in leſs danger of cutting his legs.

"The common concave ſhoes are very faulty in this reſpect; for, in fitting or ſhaping them to the foot, they require to be frequently heated, in order to make them bend to the unequal ſurface which the hoof acquires from the conſtant uſe of theſe ſhoes: they thereby become ſoft, and to attempt to harden them by beating or hammering when they are ſhaped to the foot would undo the whole. But flat ſhoes, by making them, when heated, a little narrower than the foot, will, by means of hammering, become wider, and acquire a degree of elaſticity and firmneſs, which it is neceſſary they ſhould have, but impoſſible to be given them by any other means whatever; ſo that any farrier from practice will ſoon be able to judge, from the quality of the iron, how much a ſhoe, in fitting it to the circumference of the hoof, will ſtretch by hammering when it is almoſt cold: this operation, in fitting flat ſhoes, will be leſs difficult, eſpecially when it is conſidered, that as there are no inequalities on the ſurface of the hoof (or at leaſt ought not to be) which require to be bended thereto, ſhoes of this kind only require to be made ſmooth and flat; hence they will preſs equally upon the circumference or cruſt of the hoof, which is the natural tread of a horſe."

When the roads, *&c.* are covered with ice, it becomes neceſſary to have the heels of the ſhoes turned up, and frequently ſharpened, in order to prevent horſes from ſlipping and falling. As this cannot be done without the frequent moving of the ſhoes, which breaks and deſtroys the cruſt of the hoofs where the nails are drove, to prevent this, it is recommended to thoſe who are willing to be at the expence, to have ſteel points ſcrewed into the heels or quarters of each ſhoe, which might be taken out and put in occaſionally.

The method of doing this properly, as directed by M. CLERK, is firſt to have the ſhoes fitted to the ſhape of the hoof, then to make a ſmall round hole in the extremity of each heel, or in the quarters, about three-eighths of an inch in diameter, or more, in proportion

to

to the breadth and ſize of the ſhoe; in each of theſe holes a ſcrew is to be made; the ſteel points are likewiſe to have a ſcrew on them, exactly fitted to that in the ſhoes. Care muſt be taken that the ſcrew on the points is no longer, when they are ſcrewed into the ſhoe, than the thickneſs of the latter. The ſteel points are to be made ſharp; they may be either made ſquare, triangular, or chiſſel-pointed, as may be moſt agreeable; the height of the point above the ſhoe ſhould not exceed half an inch for a ſaddle horſe, they may be made higher for a draft horſe. The key or handle that is neceſſary to ſcrew them in and out occaſionally, is made in the ſhape of the capital letter T, and of a ſufficient ſize and ſtrength; at the bottom of the handle, a ſocket or cavity muſt be made, properly adapted to the ſhape of the ſteel point, and ſo deep as to receive the whole head of the point that is above the ſhoe. In order to prevent the ſcrew from breaking at the neck, it will be neceſſary to make a gradual taper; the ſame is likewiſe to be obſerved of the female ſcrew that receives it, that is, the hole muſt be wider on the upper part of the ſhoe than the under part; the ſharp points may be tempered or hardened, in order to prevent them from growing too ſoon blunt: but, when they become blunt, they may be ſharpened as at firſt. Theſe points ſhould be unſcrewed when the horſe is put into the ſtable, as the ſtones will do them more injury in a few minutes than a day's riding on ice. A draft horſe ſhould have one point on each ſhoe, as that gives them firmer footing in drawing on ice; but for a ſaddle horſe, when they are put there, they are apt to make him trip and ſtumble.

When the ſhoes are provided with theſe points, a horſe will travel on ice with the greateſt ſecurity and ſteadineſs, much more ſo than on cauſeway or turnpike roads, as the weight of the horſe preſſes them down in the ice at every ſtep he makes.

On this ſubject, Mr. EDWARD COLEMAN, of the Veterinary College, *London*, has publiſhed ingenious and learned obſervations, in which he proves the impropriety of the methods formerly uſed, and points out the proper treatment neceſſary to aſſiſt the farrier in ſhoeing horſes. Indeed he ſays the practice of ſhoeing horſes does not appear to have undergone any material alteration for centuries, although this art is ſuſceptible of great improvement, as thoſe who have been employed to ſhoe horſes, and attend to their diſeaſes, have never acted upon principles of any ſort, and being ignorant of the ſtructure, and totally deſtitute of all knowledge of the uſes of the different parts, how ſhould they be able to cut the hoof and apply a ſhoe without deſtroying, or in ſome degree pervert the intentions of nature. All this Mr. COLEMAN demonſtrates, and proves that by the liberal aſſiſtance of many of our moſt eminent men of phyſical and anatomical knowledge, he has been enabled to give ſuch uſeful inſtructions in the art of ſhoeing horſes, as not only aſſiſts that animal, but prevents many of thoſe diſeaſes which have too frequently rendered them uſeleſs. To elucidate this he has given ſeveral plates, with references to every part of the foot and ſhoe, in order to enable any perſon to form a proper idea of the right ſhape and uſe of both, and thereby prevent the miſchief too frequently occaſioned by ignorance. Upon the whole he ſhews the utility and benefit to the community by the Veterinary College, whoſe inſtitution has met with ſuch univerſal approbation, both from the gentleman and farrier, as well as the board of ordnance, *&c. &c.* and the ingenious and inſtructive manner in which he has treated the ſubject, ſhew what attention he has paid to it, and for which he merits the public thanks. The obſtinacy and ignorance of blackſmiths, induced him to recommend a change in their old erroneous method, and adviſes all thoſe who wiſh to adopt the improved method, to ſend with their horſes, when they are conveyed to the blackſmith, the following directions, in writing:

"Mr. *A. B.* deſires his horſes may be always ſhod, and their feet treated as follows: Nothing to be cut from the ſole, binders, or frog, but looſe rotten ſcales. No ſhoes to be fitted on red-hot. Shoes to be made of good iron, with a flat ſurface for the horſe to ſtand on, web not ſo wide as formerly, and weakeſt at heel, that the frog may reſt on the ground. No more opening of heels on any pretence."

Rather than loſe a good cuſtomer, this has always been complied with, and the happy conſequence has been, that many horſes which before had never a heel to ſtand upon, with ſcarce a ſound place in the cruſt in which to drive a nail, have now the enjoyment of their feet, in a full, ſtrong, ſound, natural ſtate; and my friends, who were at firſt ſtaggered by the prejudice and pertinacious impudence of the ſtable gentry, have at length learned to deſpiſe it as it merits, and to judge for themſelves.

It having been objected, that to weaken or lower the ſhoe heels too much, previous to a ſufficient growth of the frog, might expoſe the flexor muſcle to an improper extenſion, a medium may be obſerved, until the frog ſhall have grown ſo as to reſt upon the ground, after which there can be no room for farther ſolicitude.

SHOLE, a company of fiſh.

SHOOT, (with Hunters) a young deer.

SHOOTING OF FOWL; whether the game be flying, or on a hedge or tree, always endeavour to ſhoot as near as you poſſibly can, with the wind, and rather ſideways, or behind the fowl, than in their face; nor ſhoot at a ſingle bird, if you can compaſs more within your level.

If they be on a tree, hedge, or the ground, ſeek out for the moſt convenient ſhelter you can of a hedge, bank, tree, *&c.* that you may be concealed from the ſight of the fowl, and being within ſhot, and having a fair mark, loſe no time, but let fly.

SHOOTING FLYING, is by experience found to be the beſt and moſt diverting way of ſhooting: it is neceſſary for any gentleman who ſports much, to have two guns; the barrel of one about two feet nine inches, which will ſerve very well for the beginning of the ſeaſon, and for wood-ſhooting; the other about three feet three inches, for open-ſhooting after *Michaelmas*, the birds by that time are grown ſo ſhy, that your ſhoots muſt be at longer diſtance. But if you intend one gun

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to ſerve for all purpoſes, then a three-feet barrel, or thereabouts, is moſt proper.

You ſhould always have it cocked in readineſs, holding your thumb over the cock, leſt it ſhould go off when you would not have it.

It is generally accounted the beſt way to aim at the head, if the game flies over your head; but to aim as it were under the belly, if it flies from you; and it will be beſt to let the game fly a little paſt you before you let fly, for ſo doing the ſhot will the better enter the body. Shot delivered from a gun in general loſe or decreaſe half the quantity every ten yards, or thereabouts; ſo that at forty yards there will not be thrown in above a fourth of what would be into the ſame ſpace at twenty yards. From which it appears, that if you take aim a foot before a croſs ſhoot at forty yards, you will be the moſt likely to meet the bird with the centre ſhot; and which is looked upon to fly the ſtrongeſt, and to be the more efficacious at long diſtances, than the diverging ſhot; for whether it be the ſhot ſtriking againſt each other, or againſt the air, at firſt coming out of the muzzle, or whatever be the cauſe of their diverging, it muſt in ſome degree retard their motion. But if there be a briſk wind, it will certainly bend the courſe of the ſhot; you muſt therefore conſider, whether the wind blow with the bird, or againſt it, if it blow with it, you need little more than to obſerve the general rule; becauſe the wind helps the bird forward nearly as much as it diverts the ſhot: but if it fly againſt the wind, the ſhot declines more than the bird is retarded, and therefore you ought to take aim at a greater diſtance before the bird.

One good pointer in the field at a time, if you have patience to attend him, will be ſufficient for two men to ſhoot with; but if you have an old ſpring ſpaniel, that is ſo well under command that you can always keep him near you, ſuch a dog may be uſed with your pointer with great advantage: as he will better find birds that are wounded, and alſo ſpring ſuch as are near you, which you otherwiſe might paſs. But if you ſhould be fond of hunting many pointers together in a field, as is frequently done, you ſhould not have more than one amongſt them, who has been taught to fetch his game; leſt by endeavouring to get it from each other, they ſhould tear it.

Two perſons in the field with guns are better than more at partridge ſhooting; who ſhould with patience pay a due attention to each other. When your dog points, walk up without any hurry, ſeparating a few yards one to the right the other to the left of your dog: if a covey ſprings, never ſhoot into the midſt of them, but let him on the left ſingle out a bird which flieth to the left, and him on the right a bird to the right, that you may not interrupt each other, nor both ſhoot at the ſame bird, and readily let fly at the firſt aim. Let each of you mark the fall of his bird, and immediately run to the place; and if the dog does not ſecure it, or the bird ſhould be only wounded, and have run, put him upon the ſcent; but if your dog underſtands his buſineſs, and will fetch his game, it is better to truſt to him, and load again as quick as you can. It will always be of great uſe, and ſave much time and trouble, to have a perſon without a gun, to mark the flight of the birds.

If a ſingle bird be ſprung, let him take the ſhoot to whoſe ſide it flies: the bird being killed, cauſe your dog to lie by it whilſt you load, leſt he ſpring other birds that are near you.

If you trace the birds to a hedge, double the row by walking one on each ſide, taking your dog on the ditch ſide: here, if you have a ſpaniel, he will be of great uſe; as you may make him go along in the ditch, and your pointer on the other ſide; by which means you will not paſs a bird, and one of you will moſt likely get a good ſhoot at it. Your own judgment, with very little experience, will beſt direct where the birds are moſt likely to be found at different times of the day, according to the grounds you have to hunt in.

A fowling-piece ſhould not be fired more than twenty or five-and-twenty times without being waſhed; a barrel, when foul, neither ſhoots ſo ready, nor carries the ſhot ſo far, as when clean. The flint, pan, and hammer, ſhould be well wiped after each ſhot; this contributes greatly to make the piece go off quick, but then it ſhould be done with ſuch expedition, that the barrel may be reloaded whilſt warm. The flint ſhould be frequently changed, without waiting until it miſſes fire before a new one is put in. Fifteen or eighteen ſhots, therefore, ſhould only be fired with the ſame flint; the expence is too trifling to be regarded, and by changing it thus often much vexation will be prevented. A gun, alſo, ſhould never be fired with the prime of the preceding day; it may happen that an old priming will ſometimes go off well, but it will more frequently contract moiſture and fuze in the firing; then the object will moſt probably be miſſed, and that becauſe the piece was not freſh primed.

Some attention is requiſite in loading a piece; the powder ſhould be only ſlightly rammed down, for which purpoſe, it is ſufficient to preſs the ramrod two or three times on the wadding, and not (as the uſual practice is) to ram down the wadding by main force, by drawing up the ramrod, and then returning it into the barrel with a jerk of the arm, many ſucceſſive times. For, by compreſſing the powder in this violent manner, ſome of the grains will neceſſarily be bruiſed, whilſt the exploſion will not be ſo quick, and the ſhot will be ſpread wider.

In pouring the charge of powder into the barrel, care ſhould be taken, to hold the meaſure as much as poſſible in a perpendicular line, that the powder may the more readily fall to the bottom. It is even of ſervice to ſtrike the butt-end of the gun gently on the ground, in order to detach thoſe grains of powder, which, in falling down, adhere to the ſides of the barrel.

The ſhot ſhould never be rammed down tight: after having given a ſtroke on the ground with the butt-end of the gun, in order to ſettle it, the ſame as for the powder, the wadding ſhould then be gently put down, but much leſs cloſe than that over the powder; for, when the ſhot is wadded too tight, it ſpreads wide, and the piece will recoil. In this, therefore, as well as in every other mode of loading, the ſportſman ſhould never carry

carry his gun under his arm, with the muzzle inclined to the ground; that practice at all times looſens the wadding and charge too much, ſometimes produces the loſs of ſhot, and always indicates lazineſs in the ſhooter, and indifference to the ſport.

When the piece is fired, it ſhould, if poſſible, be reloaded immediately, whilſt the barrel is warm, leſt by delaying it a certain moiſture ſhould be formed in the barrel, which would retain a part of the powder when pouring in the charge, and hinder it from falling to the bottom. Powder, alſo, will imbibe moiſture from the air, and therefore it is of additional advantage to load the piece whilſt the barrel is warm, becauſe ſome part of the moiſture will be thereby evaporated. For the ſame reaſons, the ſportſman ſhould fire off a little powder before he loads the firſt time; for it has been found, even in the dryeſt ſeaſons, that the coldneſs of the barrel, and perhaps ſome little moiſture condenſed in its cavity, have ſenſibly diminiſhed the force of the powder in the firſt diſcharge.

Some ſportſmen prime before they load: this may be proper when the touch-hole is enlarged, and the barrel is very thin at that place, becauſe, in that caſe, if the piece is not firſt primed, it will in loading prime itſelf, which diminiſhes the charge; but, when the touch-hole is of its proper ſize, the piece ſhould never be primed until after it is loaded; for then it will be known, from the few grains of powder which uſually make their way into the pan, that the touch-hole is clear and unobſtructed; and, on the contrary, if no grains come through, that it will be proper to ſtrike the butt-end of the gun ſmartly with the hand, and to prick the touch-hole until they appear. But, whether the practice is to prime before or after loading the piece, it is highly proper, after every diſcharge, to prick the touch-hole, and, what is ſtill better, to guard againſt all remains of fuze or ſquib, by inſerting into the touch-hole the feather of a partridge's wing, which will not only clear it of theſe dangerous remains, but, if the piece is delayed to be re-charged, will take away all humidity that may be contracted there.

Every ſportſman has his own manner of bringing his gun up to his ſhoulder, and of taking aim; and each follows his own fancy with reſpect to the ſtock of his fowling-piece, and its ſhape. Some like it long, others ſhort; one prefers it ſtraight, another bent. And, although there are ſome ſportſmen, who ſhoot equally well with pieces ſtocked in different ways and ſhapes, yet certain principles may be laid down, as well upon what is the proper length, as upon the proper bent, that the ſtock of a gun ſhould have. But in the application, thoſe principles are very frequently, nay moſt commonly, counteracted, by the whim or the particular convenience of the ſhooter. Generally ſpeaking, however, it is certain, that, for a tall, long-armed man, the ſtock of a gun ſhould be longer than for one of a leſs ſtature and ſhorter arm. That a ſtraight ſtock is proper for him who has high ſhoulders, and a ſhort neck; for, if it be much bent, it would be very difficult for him, eſpecially in the quick motion required in ſhooting at a flying or running object, to place the butt of the gun-ſtock firmly to the ſhoulder; the upper part alone would in general be fixed, which would not only raiſe the muzzle, and conſequently ſhoot high, but make the recoil more ſenſibly felt, than if the whole end of the ſtock were firmly placed on the ſhoulder. Beſides, ſuppoſing the ſhooter to bring the butt home to his ſhoulder, he would ſcarcely be able to level his piece at the object. On the contrary, a man with low ſhoulders, and a long neck, requires a ſtock much bent; for, if it is ſtraight, he will, in the act of lowering his head to that place of the ſtock at which his cheek ſhould reſt, in taking aim, feel a conſtraint, which he never experiences, when, by the effect of the proper degree of bent, the ſtock lends him ſome aſſiſtance, and, as it were, meets his aim half-way.

Independent, however, of theſe principles, the application of which is ſubject to a variety of modifications; we venture to adviſe the ſportſman in the choice of a fowling-piece, that a long ſtock is preferable to a ſhort one, and at the ſame time rather more bent than uſual; for a long ſtock ſits firmer to the ſhoulder than a ſhort one, and particularly ſo when the ſhooter is accuſtomed to place his left hand, which principally ſupports the piece, near to the entrance of the ramrod into the ſtock.

The practice of placing that hand near the bridge of the guard is, undoubtedly, a bad one; the aim is never ſo ſure, nor has the ſhooter ſuch a ready command over his piece, as when he places his hand near the entrance of the ramrod, and, at the ſame time, ſtrongly graſps the barrel; inſtead of reſting it between his fore-finger and thumb, in conformity with the general cuſtom. It may, therefore, be depended upon, that a ſtock bent a little more than ordinary is better for ſhooting true than one too ſtraight, becauſe the latter, in coming up to the aim, is ſubject to the inconvenience of cauſing the ſportſman to ſhoot too high.—We would alſo adviſe him to have his fowling-piece a little elevated at the muzzle, and the ſight ſmall and flat; for the experienced well know, that it is more uſual to ſhoot low than high. It is, therefore, of ſervice that a piece ſhould ſhoot a little high, and then, the more flat the ſight, the better the line of aim will coincide with the line of fire, and in conſequence the gun will be leſs liable to ſhoot low.

The method by which to avoid miſſing a croſs-ſhot, whether it be flying or running is, not only to take aim before the object, but likewiſe not involuntarily to ſtop the motion of the arms, at the moment of pulling the trigger; for the inſtant the hand ſtops in order to fire, although the ſpace of time is almoſt imperceptible, the object, if a bird, gets beyond the line of aim, and the ſhot will fly behind it; and if a hare or rabbit is ſhot at in this manner, whilſt running, and eſpecially if at a diſtance, the animal will only be ſlightly ſtruck in the buttocks, and will be taken but by hazard. When a bird, however, is flying in a ſtraight line from the ſhooter, this fault can do no harm; the object can ſcarcely eſcape, if the piece be but tolerably well directed, unleſs, indeed, it is fired at the moment the game ſprings, and before the birds have taken a horizontal flight. In that caſe, if the hand ſhould ſtop ever

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ſo little at the inſtant of firing, the ſportſman will ſhoot low, and inevitably miſs the mark.

It becomes, therefore, extremely eſſential to accuſtom the hand, in taking aim, to follow the object, without ſuſpending the motion in the leaſt degree, which is a capital point towards acquiring the art of ſhooting well: the contrary habit, which it is very difficult to correct, when once contracted, prevents that perſon from attaining perfection in the art, who, in other reſpects, may eminently poſſeſs quickneſs of ſight and ſteadineſs of aim.

Nor is it leſs eſſential in a croſs-ſhot to aim before the object, in proportion to its diſtance, at the time of firing. If a partridge, for inſtance, flies acroſs at the diſtance of thirty or five-and-thirty paces, it will be ſufficient to take aim at the head, or, at moſt, but a ſmall ſpace before. The ſame rule will nearly hold in the caſes of ſhooting quails, woodcocks, pheaſants, or wild ducks, although thoſe birds move their wings ſlower than the partridge. But, if the object is fifty, ſixty, or ſeventy paces diſtant, it then becomes neceſſary to aim at leaſt half a foot before the head. The ſame practice ſhould be obſerved in ſhooting at a hare or rabbit, when running in a croſs direction, making due allowance for the diſtance, and for the ſwiftneſs of the pace, which is not always the ſame. It is alſo proper, in ſhooting at an object very diſtant, to take aim a little above it, becauſe ſhot, as well as ball, have but a certain range in point blank, beyond which, each begins to deſcribe the *curve* of the *parabola*.

When a hare runs in a ſtraight line from the ſhooter, he ſhould take his aim between the ears, otherwiſe he will run the hazard either of miſſing, or at leaſt of not killing dead, or, as it is ſometimes called, "*clean*." A true ſportſman, who has the ambition of ſhooting well, is not content with only breaking the wing of a partridge, or the thigh of a hare, when he ſhoots at a fair diſtance: for, in ſuch caſe, the hare, or the partridge, ought to be ſhot in ſuch a manner that it ſhould remain in the place where it falls, and not require the aſſiſtance of dogs to take it. But, if he ſhoots at a great diſtance, it is no reproach that the partridge is only winged, or the hare wounded, ſo that it cannot eſcape.

Practice ſoon teaches the ſportſman the proper diſtance at which he ſhould ſhoot. The diſtance at which he ought infallibly to kill any kind of game, with patent ſhot (No. 3) provided the aim be well taken, is, from twenty-five to thirty-five paces for the footed, and from forty to forty-five paces for the winged game. Beyond this diſtance, even to fifty or fifty-five paces, both partridges and hares are ſometimes killed, but, in general, the hares are only ſlightly wounded, and carry away the ſhot; and the partridges, at that diſtance, preſent ſo ſmall a ſurface, that they frequently eſcape untouched between the vacant ſpaces of the circle. Yet it does not follow that a partridge may not be killed with No. 3, patent ſhot, at ſixty, and even ſeventy paces diſtance; but then theſe ſhots are very rare.

Thoſe who know the range of a fowling-piece, and the cloſeneſs of its ſhot, ſhrug up their ſhoulders at the romances of thoſe ſportſmen, who, by their own accounts, daily kill, with ſhot (No. 3) at the diſtance of ninety and one hundred paces. Nay, ſome even go ſo far as to aſſert, that they have killed, with this ſized ſhot, hares at one hundred and ten paces, and pheaſants at one hundred and twenty. It cannot, however, be denied, that with ſhot No. 5, a man may have killed a hare or a partridge at one hundred and ten, or poſſibly at one hundred and twenty paces; but then theſe ſhots are ſo extraordinary, and occur ſo ſeldom, that the whole life of a ſportman will ſcarcely afford more than two or three inſtances; and, when it does happen, it will be found to be by a ſingle pellet, which, by great chance, has hit either the wing or the head of the partridge, or has ſtruck the head of the hare, by which it is ſtunned, or, perhaps, has penetrated the ſmall part of the ſhoulder, where there is, to prevent the wound being mortal, only a very thin ſkin, which, being ſtretched by the animal in running, is thereby rendered more eaſy to be pierced with the ſhot.

For expertneſs in finding the game, a ſportſman muſt pay attention to the difference of the ſeaſons, and the weather; to the temperature of the air, and even to thoſe hours of the day which are more or leſs favourable for ſhooting. In warm weather he ſhould hunt for the game in plains and in open grounds, at the ſame time bearing in mind, that, during the heat of the day, the birds frequent moiſt places, marſhes where there is little water and much high graſs, the ſides of rivers and brooks, and hills expoſed to the north. But, in cold weather, they will moſt commonly be found on little hills expoſed to the ſouth; along hedge-rows, among the heath, in ſtubbles, and in paſtures where there is much furze and fern. In hard froſts they get into thickets, low places, and marſhes, where they ſeek to ſhelter themſelves from the cold, as well as the heat, in different ſeaſons. The greateſt part, however, of theſe rules will only apply when the weather is extremely hot or ſeverely cold, at both of which times the hares and partridges almoſt totally deſert the plains and open grounds. The game is more eaſily approached, or, in the language of ſporting, "*lies better*," in covert than in open places: a double advantage is therefore obtained by hunting for them in the former.

He ſhould, at all times of the ſhooting-ſeaſon, go out in the morning before the dew is off. At that time the ſhepherds and their flocks, the huſbandmen and their teams, have not entirely ſpread over the fields, and have as yet ſprung but a ſmall quantity of game; the ſcents of the preceding night will alſo be more warm, and the dogs will hit them off better. Beſides, if he is not early, he loſes ſuch opportunities of ſhooting as he will not meet again during the remainder of the day. All theſe advantages, therefore, greatly counterbalance the notion generally received, that, as the birds will not lie well while the ground is wet, the ſportſman ſhould not go out early in the morning, or before the dew is gone off.

The colour of the dreſs which the ſhooter ſhould wear is worthy notice. Green is unqueſtionably the beſt in the early part of the ſeaſon, whilſt the leaves remain on the

the trees. For, if he is clad in a glaring colour, when the face of the country retains its verdure, the game will perceive his approach more eaſily, and from a greater diſtance. In winter, for the ſame reaſon, his dreſs ſhould be compoſed of a dark brown, or ſome colour reſembling that of the dead leaf.

It is beſt to hunt as much as poſſible againſt the wind, not only to prevent the game from perceiving the approach of the ſportſman and his dog, but alſo to enable the dog to ſcent the game at a greater diſtance. We ſay as much as poſſible, becauſe in advancing and returning upon his ſteps, in order to range the ground well, the ſhooter cannot always keep the advantage of the wind. When, therefore, it is propoſed to hunt any particular tract of country, in which game is expected to be found, it is indiſpenſably neceſſary to take the wind, and it behoves the ſhooter to range and quarter his ground in ſuch manner and direction as to preſerve it in his favour.

He ſhould never be diſcouraged from hunting and ranging the ſame ground over and over again, eſpecially in places covered with heath, brambles, high graſs, or young coppice-wood. A hare or rabbit will frequently ſuffer him to paſs ſeveral times within a few yards of its form, without getting up. He ſhould be ſtill more patient, when he has marked partridges into ſuch places; for it often happens, that, after the birds have been ſprung many times, they lie ſo dead, that they will ſuffer him almoſt to tread upon them before they will riſe. Pheaſants, quails, and woodcocks, do the ſame.

He ſhould always keep a ſharp eye, and carefully look about him, never paſſing a buſh or a tuft of graſs without examination; but he ſhould never ſtrike either with the muzzle of his gun, for the reaſons aſſigned where we ſpeak of wadding. It is alſo proper to ſtop every now and then; for this interruption of motion frequently determines the game to ſpring, which would otherwiſe have ſuffered him to paſs. He who patiently beats and ranges his ground over and over again, without being diſcouraged, will always kill the greateſt quantity of game; and, if he is ſhooting in company, he will find game where others have paſſed without diſcovering any. As ſoon as he has fired, he ſhould call in his dog, and make him lie down until he has re-loaded his piece; for, without this precaution, he will frequently have the mortification to ſee the game riſe when he is not prepared to ſhoot.

In ſhooting in an open country, one of the moſt eſſential points to be obſerved is, to mark the place where the partridges alight; therefore, when he has killed his bird, he ſhould not immediately run to pick it up, or attend to make his dog bring it to him, but he ought to follow the others with his eye, until he ſees them ſettle, or as far as his ſight can extend, without interruption from a wood or a hedge. In the latter caſe, although he has not been able to diſtinguiſh the exact ſpot on which they have alighted, yet he may tolerably well gueſs whereabout they are, eſpecially if he is acquainted with the country in which he is ſhooting. And, when two or more ſportſmen ſhoot in company, each ſhould mark the birds which fly on his own ſide.—The rules of conduct which we have juſt laid down in ſhooting partridges will with equal propriety apply to all the feathered game.

Of Shooting Hares and Rabbits.

According to naturaliſts the hare lives ſix or ſeven years, and attains its full growth in one. From the firſt year it engenders at all ſeaſons, and has no particular time for coupling with the female. Yet it is obſervable, that, from the month of *December* to the month of *March*, the buck ſeeks the doe more frequently, and about that time the greateſt number of leverets are found. The doe goes with young thirty or one-and-thirty days, and brings forth one, two, three, and ſometimes four, young ones, which ſhe kindles in a tuft of graſs or heath, or in a little buſh, without any preparation whatever. When there are ſeveral leverets at a birth, it is ſaid that the whole are invariably marked with a ſtar on the forehead, and when there is but one it is alſo ſaid that it never has this mark.

Several authors of natural hiſtory have aſſerted, that all, or the greateſt part of hares, were hermaphrodites. We are aſtoniſhed to find it advanced in one book (amongſt many others) which treats of modern ſport, "That the male hare engenders in its own body, but never brings forth but one leveret." It is remarkable alſo, that the ancient LEGES WALLICÆ affixed no fine for the killing of a hare, for this ſingular reaſon, that it was believed every other month to change its ſex.

The circumſtance which ſeems to have given riſe to this ſtrange conjecture, is the formation of the genital parts of the male hare, whoſe teſticles do not appear on the outſide of the body, eſpecially when he is young, being contained in the ſame cover with the inteſtines. Another reaſon is, that on the ſide of the penis, which is ſcarcely to be diſtinguiſhed, there is an oblong and deep ſlit, the orifice of which much reſembles the *vulva* of the female. This equivocal conformation makes it difficult to know the ſex of the hares by the inſpection of the genital parts; ſportſmen therefore ſeldom refer thither in order to diſtinguiſh the male and female, but reſort to other marks which point them out more eaſily. Thus the head of the male is more ſhort and round, the whiſkers longer, the ſhoulders more ruddy, and the ears ſhorter and broader, than thoſe of the female; the head of which is long and narrow, the ears long and ſharp at the tip, the fur of the back of a grey colour inclining to black, and, in point of ſize, is larger than the male.

The male hare, or buck, when he is hunted with hounds, after making one or two rings, generally runs ſtraight forward; he goes a great way, and makes a long chaſe. The doe runs leſs, ſhe dodges about the place ſhe inhabits, and more frequently doubles. When a hare is eſpied on the form, if the manner in which the ears lie is obſerved, it may be known whether it is a buck or doe. If a buck, the ears will be drawn cloſe upon the ſhoulders, one againſt the other; but if a doe, the ears will be open and diſtended on each ſide of the neck and ſhoulders.

Two ſpecies of hares may be diſtinguiſhed; thoſe of the wood, and thoſe of the plain. The hares of the wood, are in general, much larger than thoſe of the open ground, their fur is not of ſo dark a colour, and they are better covered with it; they are alſo ſwifter in the chaſe, and their fleſh is of a better flavour. Among the hares of the plain, thoſe may be diſtinguiſhed which inhabit the marſhes. They are not ſo ſwift of foot, they are leſs covered with fur, and their fleſh is not ſo fine and delicate.

A young hare, that has attained the full growth, is known from an old one by feeling the knee-joints of the fore-legs with the thumb-nail. When the heads of the two bones which form the joints are ſo contiguous that little or no ſpace is to be perceived between them, the hare is old. If, on the contrary, there is a perceptible ſeparation between the two bones, the hare is young, and is more or leſs ſo, as the two bones are more or leſs ſeparated. It may alſo be known whether a hare is young or old, but without pretending to aſcertain the preciſe age, by compreſſing the under jaws: if they break at the point immediately under the fore-teeth upon a ſlight degree of preſſure, the hare is certainly a young one; but, if conſiderable force is required, the contrary is as certain.

If a ſportſman finds a hare on her form, and wants to come near her, he muſt not go towards her in a ſtraight line, but approach circularly, otherwiſe ſhe will ſtart up. If ſhe ſtarts up at a diſtance, it is often of uſe to follow her with the eye, becauſe ſhe will ſometimes ſquat down; and then, if ſhe is left for a little ſpace of time, ſhe may be approached near enough to be ſhot on the form. But if ſhe is perceived to enter a copſe, or ſmall wood, it is ſtill better; in that caſe, the ſportſman ſhould caſt his dogs through the part of the wood where he conceives it probable ſhe has clapped down, and then he may wait for her on that ſide of the wood at which he thinks ſhe will come out.

An old rabbit is diſtinguiſhed from a young one by the ſame ſigns which we have deſcribed in ſpeaking of the hare. No ſport is more pleaſant and eaſy than that of hunting rabbits, with one or two terriers, in a warren which is tolerably well ſtocked; eſpecially if the terriers are wry-legged. For, in that caſe, the rabbits only play before the dogs, ſtopping at each inſtant to liſten to them, and ſuffering themſelves to be driven about ſometimes for the ſpace of three-quarters of an hour before they take burrow. Then, as theſe animals run about in ſmall compaſs, it is very eaſy to come in their way, either in the paſſes, or the ſides of the woods, by following the cry of the dogs; or elſe by waiting for them at the burrows, about which they generally play for ſome ſpace of time before they take the earth.

The rabbit is very timid, and very acute of hearing; for which reaſon, care ſhould be taken to make as little noiſe as poſſible, and in particular never to walk or run in the paſſes or acroſs the woods, to get before them, but at thoſe times only when the dogs give tongue; for then the rabbit, being occupied either with liſtening to the dogs, or running before them, pays leſs regard to the noiſe which the ſportſman makes in the purſuit.

In a warren of ſmall extent, much amuſement may be procured by ſtopping up all the burrows at midnight, at which time the rabbits are almoſt all out at feed, and then going to hunt them the next morning: by thus cutting off their retreat, a man cannot fail to kill ſeveral. Or he may ſtop up the burrows with hay, graſs, or any other material, at the diſtance of two feet from the mouth downwards, and then, when the rabbits are driven in by the dogs, he may take as many as he pleaſes.

Rabbits are hunted with dogs at all times of the year, but the months of *July* and *Auguſt* are the moſt favourable: they then abound, and are of a good ſize: ſome have attained their full growth, and the ſmalleſt are half grown: earlier than this they are ſcarcely worth the trouble of ſhooting, and the dogs hunt them badly, becauſe they do nothing but dodge about little buſhes, not being in a condition to defend themſelves.

Skill and practice, but above all quickneſs, are eminently neceſſary to ſhoot rabbits in a wood, either when the rabbit is hard run by the dogs, or at the moment of ſtarting up, or in a view; and ſtill more ſo, when purſued by a ſpaniel who has ſtruck at but miſſed her. If at this time the rabbit croſſes a road, or a paſs cut through a wood, ſhe darts like lightning, and ſcarcely gives the ſhooter time to prepare himſelf, unleſs the way is very broad.

It is alſo very difficult to ſhoot her when ſhe gets up from among his feet, whether in a wood, or in places covered with heath or brambles which adjoin the warren, and where they are moſt commonly found. The courſe of the rabbit, for ſome little time at the firſt, is much more rapid than that of the hare, and is at the ſame time more oblique and twiſting. It ſeems to glide rather than run, and the proper moment of ſhooting it is not eaſily ſeized.

If at any time of the day, but principally from nine in the morning until noon, and again in the evening (about ſun-ſet), the ſportſman poſts himſelf near ſome well-frequented burrows, either by getting up into a tree, or lying behind a hedge, he will ſoon ſee them come out of their holes and play about the edges, at which time he may ſhoot them to great advantage. Or he may in the evening watch thoſe pieces of corn-land which lie near the warren; for thither the rabbits are certain to go at that time to feed. Rabbits, being accuſtomed to run about much during the night, may be ſhot by moonlight, by watching at thoſe places where they come to play or feed. Or a ferret may be put into the burrows, and the rabbits ſhot as they bolt out; but this requires great quickneſs in the ſhooter.

Of Partridge Shooting.

Partridges pair in the ſpring, but at an earlier or later period, in proportion as the ſeaſon is more or leſs mild. When the weather in the month of *January* is mild, they are found in pairs; but then, if the cold weather returns, they again form in coveys. The hen partridge lays her eggs during the whole of the month of *May*, and the beginning of *June*. Her neſt is made upon the ground,

ground, and conſiſts only of a few blades of graſs, conſtructed without art, at the edge of a corn-field, in a meadow, a heath, &c. She lays from fifteen to twenty eggs. The earlieſt birds begin to fly towards the latter end of *June*. From this ſtate of growth their plumage undergoes a variety of changes, until the period arrives when red and blackiſh feathers begin to form the *horſe ſhoe* upon the breaſt; which is very conſpicuous on the male, but leſs diſtinguiſhable on the female: this mark takes place about the beginning of *October*, and it is not until that is perfect that they can properly be called *partridges*.

The young birds at this time, when the plumage is complete, can only be diſtinguiſhed from the old ones by the firſt feather of the wing, which terminates in a point like a lancet; whereas in thoſe which are not of the laſt brood this feather is round at the extremity. This diſtinction remains until the firſt moulting, which generally takes place in the *July* following. A further difference is alſo obſervable in the colour of the legs, which in the young ones are yellow, and in the old grey. The difference between the male and the female, when the partridges have attained their full growth, conſiſts in the *horſe-ſhoe* which we have before noticed, and in an obtuſe ſpur on the hinder part of the leg: the male only has this protuberance, and he is beſides a little larger than the female.

Partridges are not equally abundant every year; their number depends in a great meaſure upon the mildneſs of the weather, not only at the time of laying the eggs, and the ſeaſon of incubation, but alſo when the birds are hatched: this period of time is, for the moſt part, from the end of *April* to the middle of *June*.

In general, when the ſeaſon is dry at this period, the birds are very numerous; but, on the contrary, when the rains have been heavy and frequent during the time of laying and incubation, the neſt, which the partridge prefers to make in low places, is deſtroyed by the floods; an event which would not probably have happened, if the rains had ſet in ſooner; for in that caſe the partridge, finding the plains and low places too wet, would have choſen to build her neſt in a dry elevated ſituation. If the rains happen at the time when the young birds come out of the ſhell, many of them, which have ſcarcely ſtrength at that time to ſtand, will be drowned. A wet ſeaſon alſo deſtroys the ants, which are the chief food both of young partridges and pheaſants. At ſuch time even drought, when it is in a certain degree, is unfavourable to them; for then the ground cracks and forms crevices, into which they fall and periſh, being too weak to extricate themſelves.

The old partridge has alſo many dangers to encounter, from the time of laying her eggs until the young ones are hatched; and theſe ariſe as well from weazels and other vermin, crows, magpies, and ſhepherds dogs, (all of which ſuck their eggs,) as from the ſhepherds and farmers themſelves, who will never ceaſe to deſtroy the eggs while the preſent ſyſtem of game-laws ſubſiſts: ſo that, except in thoſe manors which are well preſerved, there is reaſon to ſuppoſe that one-half of the broods in any one year are never reared. When the eggs of a partridge are deſtroyed in any of theſe ways, it ſometimes happens that ſhe lays again; therefore, when at the end of *September*, and even later than that, young birds are found not perfectly feathered in the tail, they are of this ſecond hatching, or, as it is ſometimes termed by ſportſmen, *clacking*.

Whilſt the birds are young, that is to ſay, until the middle of *October*, it is eaſy to ſhoot them, in a country tolerably well ſtocked; but after that period, and eſpecially when they have taſted the green wheat, they fly far, and are very wild: they are not to be ſeparated but by dint of following them down, particularly in a flat country, where there are neither roughs nor thickets; and it is only by breaking the covey that we can indulge a reaſonable hope of ſucceſs; for while they remain in the covey, we can ſcarcely get within gun-ſhot of them. Thus it is more eſſential in this ſport, than in any other, that the ſhooter ſhould have good legs and eyes: the legs, to tire the birds, and break the covey by an inceſſant purſuit; and the eyes, to mark them down with a certainty.

When a ſportſman is ſhooting in a country where the birds are thin, and he no longer chooſes to range the field for the bare chance of meeting with them, the following method will ſhew him where to find them another day. In the evening, from ſun-ſet to night-fall, he ſhould poſt himſelf in a field, at the foot of a tree or buſh, and there wait until the partridges begin to call or *juck*, which they always do at that time; not only for the purpoſe of drawing together when ſeparated, but alſo when the birds compoſing the covey are not diſperſed. After calling in this manner for ſome little ſpace of time, the partridges will take a flight; then, if he marks the place where they alight, he may be aſſured they will lie there the whole night, unleſs diſturbed. Let him return to the ſame poſt by break of day, and there watch a while; being careful to keep his dog in a ſtring, if he is not under perfect command.

As ſoon as the dawn begins to peep, the partridges will begin to call, and ſoon afterwards will perform the ſame manœuvre as on the preceding evening; that is to ſay, after having called a while, they will take their flight, and will moſt commonly ſettle at a little diſtance. There, in a few minutes, they will call again, and ſometimes take a ſecond flight, but that will be to no great diſtance. Then, as ſoon as the ſun is riſen, and the ſportſman can ſee to ſhoot, he may caſt off his dog, and purſue them.---In ſnow it is very eaſy to kill partridges on the ground before a ſetting-dog or pointer; becauſe the colour of the birds, contraſting with the whiteneſs of the ſnow, makes them perceivable at the firſt glance. Then the poachers have fine ſport, eſpecially if the ſnow happens at the full of the moon. At this time they will be out the whole of the night, with ſhirts over their clothes, and white caps on their heads; and then, as the partridges lie in a cluſter, they frequently deſtroy half the covey at one ſhot. Thus ſnow may be accounted the moſt fatal time for partridges; for, if it laſts but a little while, they are expoſed to the wiles of the poacher, and if for a long time, they periſh with hunger.

As one-third more of male than female partridges are bred in a ſeaſon, it happens that, in the time of pairing, ſeveral cocks contend for the ſame hen, who, being thus tormented, will ſometimes totally leave the diſtrict; or, if ſhe remains, being thus obliged to run continually about, in order to avoid the purſuit of the males whom ſhe hath repulſed, ſhe drops an egg in one place, and an egg in another, until at length there remains for her but one cock, and no neſt. It would therefore much increaſe the broods of partridges, to kill a part of the cocks when they begin to pair; but as this could only effectually be done after the time limited for ſhooting them in this country expires, we muſt neceſſarily omit giving any inſtructions on the ſubject. There are, however, ſome few ſportſmen in England, of ſuch keen eyes, that they can diſtinguiſh the cocks from the hens when the covey riſes from the ground, and ſo expert, as to make it the pride of their dexterity, to kill not more than a brace of hens in one day's ſport.

Of Pheaſant Shooting.

Theſe birds generally lay their eggs in the woods, the number of which is commonly ten or twelve. The ſeaſon of the young pheaſants nearly correſponds with that of the partridges. The pheaſants of the firſt year are marked in the wing like partridges. The cock, whoſe plumage is completed the firſt year, is in like manner known by the ſpurs, which in him are round and blunt, but long and ſharp in the old one. The hen has alſo a ſmall ſpur on the hinder part of the leg, which is very ſmall in thoſe that are young, and larger and more prominent in the old; but this happens in a greater or leſs degree, in proportion to the age of the bird. Beſides, in the young ones, the ſpurs are ſurrounded each with a ſmall black circle, which does not diſappear until the ſecond hatching. The legs of thoſe which are very old, that is to ſay, of ſuch as have attained five or ſix years, are more wrinkled, and of a darker colour, than thoſe of the young ones in the firſt year; the cryſtal of the eye of the former is alſo more yellow, whilſt that of the young ones of the firſt and ſecond year is white. But all theſe marks and ſigns are not without many exceptions. The leaſt equivocal mark, perhaps, is the beak, which feels more tender in the young than in the old birds.

Pheaſants are accounted ſtupid birds; for when they are ſurprized they will frequently ſquat down like a rabbit, ſuppoſing themſelves to be in ſafety as ſoon as their heads are concealed; and in this way they will ſometimes ſuffer themſelves to be killed with a ſtick. They love low and moiſt places, and willingly haunt the edges of thoſe pools which are found in woods, as well as the high graſs of marſhes that are near at hand; and, above all, places where there are clumps of alders. The inſtinct of theſe birds is not of a nature ſo ſocial as that of the partridge. As ſoon as they find that they have no further occaſion for the care of the hen-mother, they ſeparate from her, and live in ſolitude; ſhunning one another at all times, except in the months of *March* and *April*, the ſeaſon at which the male ſeeks the female.

During the day-time, pheaſants remain upon the ground among the underwood, from whence they frequently iſſue forth into the ſtubbles, and the fields lately ſown; but it is only in countries where they are in great plenty, that they thus ſhew themſelves in the open grounds. At ſun-ſet, the greateſt part of them fly up into the long branches of oak-trees, in order to rooſt all night, and, at the time they do this, they invariably make a noiſe, which is called *cocketting*; and that in a greater degree during the winter ſeaſon: ſo that poachers who lie in wait for them in the evening, are warned by the noiſe of the place where they are perched; and, when the night is advanced, repair under thoſe trees which the birds have choſen, and there ſhoot them with the greateſt eaſe: for at this time the pheaſants will permit them to come as near as they pleaſe; and will ſometimes even permit the poacher to fire more than one ſhot, before they will leave the tree.

The pheaſant is alſo frequently taken when thus perched upon a tree, by holding a lighted match under him; ſo that the fumes of the ſulphur reaching him, he falls ſuffocated to the ground. Monſieur du Pratz, in North America, hit upon a very ingenious expedient for taking the paſſenger pigeon on the rooſt, by placing under the trees veſſels filled with flaming ſulphur; the fumes of which aſcending, brought them ſenſeleſs to the ground in perfect ſhowers.

For pheaſant-ſhooting, pointers that are bold-ſpirited, and have been a great deal uſed to this work, will follow a pheaſant very well; but from the generality of ſlow ſtaunch pointers, a pheaſant will get off ſo faſt, as, when ſprung, to be out of the reach of gun-ſhot; for which reaſon ſpaniels are often uſed. The ſpaniels proper for this work are of a middling ſize, their legs rather ſhort, and very ſtrong: they muſt be hardy, able to bear great fatigue, diſpoſed to go into cover freely and undauntedly, to hunt very briſkly, and yet go very ſlow when upon ſcent of game. You cannot begin too early with theſe dogs, to teach them to fetch a bird and bring it after you; which will prevent them getting a habit of tearing or breaking the game. One of this kind muſt be always obliged to lie down whilſt you load; and as his buſineſs is to ſpring game, you ſhould never ſuffer him to go above ten or fifteen yards from you; and therefore take him out with others that are brought under command, as ſoon as he is able to hunt. For, to have good ſpaniels, they muſt be uſed a good deal. If you find any difficulty in keeping him to hunt near you, put one of his feet into his collar, and hunt him ſo for an hour or two. Frequent repetitions of this puniſhment will bring him to a ſenſe of his duty. One, two, or three brace of ſpaniels, well broken, may be uſed together; and they will find work enough in a large wood or thick cover. If two perſons intend hunting in a wood, it is beſt for one to go round it on the outſide firſt, whilſt the other goes oppoſite to him a little way into the wood, and afterwares to ſink in deeper, as you ſhall find occaſion: unleſs you know the

the moſt likely part to find game in, in which caſe you may hunt the interior part firſt. Some perſons, when they want to hunt a very large wood, approve of taking a brace of high-mettled ſpaniels that have not been broken to hunt cloſe, and turn them into the middle of the wood; whilſt they, with their well-broken ſpaniels, hunt outwards. But, unleſs, you have any extenſive woods to hunt, ſuch dogs are more likely to hinder than add to your ſport; and it will be better to hunt with patience with only ſuch dogs as are under good command, let the woods or cover be ever ſo large. In hedge-rows, or in open hollow covers, a brace of high-mettled pointers are by far the beſt for this ſport.

Of Shooting the Grouſe, or Muir-Game.

Theſe are found in ſome parts of the northern counties in *England*, in parts of *Wales*, and in the *New Foreſt*, in *Hampſhire;* but in neither of theſe countries are they at this day very numerous. In *Scotland*, however, and particularly the vicinity of the *Grampian* mountains, they abound in ſuch ſort, that a tolerable ſhot may kill from twenty to thirty brace a day, for the firſt three weeks of the ſeaſon, provided the weather is favourable. An excurſion, therefore, into that country in the grouſe ſeaſon, affords the keen ſportſman a noble entertainment. This ſpecies of ſport is ſo perfectly ſimilar, in all its operations, to that of partridge ſhooting, that it will be unneceſſary for us to ſay more on the ſubject, other than to deſcribe ſome of its habits.

The grouſe is larger than the partridge, and weighs about nineteen ounces. The plumage is a mixture of red, black, and white, and the tail is nearly ſimilar to that of the partridge, only a little larger. The legs are clothed to the very toes, and the outmoſt and inner toes are connected to the firſt joint of the middle toe by a ſmall membrane. The bill is ſhort, arched, and of a blackiſh colour, and the eyes are encircled with two large and red eye-brows, which are compoſed of a fleſhy membrane, rounded and pinked on the upper part, and extending beyond the crown of the head. The plumage of the hen has leſs of the red and more of the white than the cock; the membrane of the eye-brow is leſs projected, leſs pinked, and of a leſs lively red. She makes her neſt on the ground, and lays from eight to ten eggs. The principal food of grouſe is black whortle-berry *(vaccinium myrtillus)* and the red whortle-berry *(vaccinium vitis idæa)*, alſo common heath-berries. It is a cuſtom in Wales to cut open the part which contains the food for young ſportſmen to ſmell; the fragrance is extremely fine. The young birds for the firſt year are called *poults*.

The grouſe inhabit thoſe mountains and moors which are covered with heath, or *heather*, and ſeldom or ever deſcends into the lower grounds. They fly in packs, conſiſting in general of four or five brace; and they love to frequent moſſy places, particularly in the middle of the day, and when the weather is warm. The old cock is known by the chocking noiſe he makes; and, when the dogs point at a brood, he is commonly the firſt bird that goes off. In purſuing this game, if, when the dogs are ſet, the ſhooter perceives the birds to erect their head and run, he may be pretty certain they will not lie very well during the courſe of that day; and the only mode by which he will be enabled to get a ſhot at them is, to run after them as faſt as he can the moment he perceives their heads, and by this means he will probably get near enough to ſhoot when they riſe upon the wing: this is found, by experience, to be the beſt method in thoſe days when the birds, either from wet, or ſome other cauſe, will not lie well to the dogs.

As the ſeaſon for ſhooting this game commences in hot weather, and the birds, when ſhot, are ſubject to grow putrid in a ſhort ſpace of time, it is highly proper, eſpecially if they are wanted to be ſent to a diſtance, that they be drawn carefully, and extremely clean, the very inſtant they are ſhot, and immediately afterwards ſtuffed with dry heather; and if the plumage happens to be wetted by the fall to the ground when the bird is ſhot, or by the tearing of the dogs, it muſt at the ſame time be wiped as dry as poſſible, before it is put into the game-bag. Before the birds are packed up to be ſent off, it is alſo proper to lay them within the moderate influence of a fire, for ſome minutes, in order to render them more perfectly dry.

Of Woodcock Shooting.

The woodcock is a bird of paſſage, and commonly arrives here about the latter end of October. Their paſſage, in different ſeaſons, is more or leſs advanced or retarded, according as the wind and weather happen to be at the beginning of the autumn. The eaſt and north-eaſt winds, and eſpecially when they are accompanied with fogs, bring them over in the greateſt numbers. At their arrival, on the firſt flight they drop any where, as well under high trees, as in copſes, in hedge rows, among heath and brambles; afterwards they take up their abode in copſes of nine or ten years growth, and ſometimes in thoſe little ſhaws which, having been cut, are left to grow for timber; for it is but ſeldom that a woodcock is found in a young copſe of more than three or four years growth. When we ſay they take up their abode, we muſt not be underſtood to mean that they remain in the wood during the whole of the winter; for it is obſerved, that they do not ſtay longer than twelve or fifteen days in one place; and that if they do remain there for a longer ſpace of time, it is in conſequence of ſome wound or hurt received. This bird riſes heavily from the ground, and makes a conſiderable noiſe with his wings. When he is found in an open field, in a hedge-row, or in the paſs of a wood, he frequently only ſkims the ground, and then, his flight not being rapid, he is eaſily ſhot. But when he is ſprung in a tall wood, where he is obliged to clear the tops of the trees before he can take a horizontal flight, he ſometimes riſes very high, and with great rapidity: in this caſe it is difficult to ſeize the moment of ſhooting, by reaſon of the turnings and twiſtings which he is obliged to make, in order to paſs between the trees. The woodcock walks very clumſily, as all birds are obſerved to do which have great wings and ſhort legs. His flight alſo is very bad, and particularly in the day-

day-time. It is ſaid, however, that he ſees better in the duſk.

Shooting woodcocks is a very pleaſant amuſement in woods that are not too thick; and if they are cut through in ſeveral places, it renders it more eaſy to ſhoot him in his paſſage when he ſprings in the wood, and alſo to mark him with greater certainty. Beſides, this ſport is more delightful and animating, as requiring a great noiſe and clamour with men and dogs. There is a ſpecies of ſpaniels that give tongue when the cock ſprings, or when they get upon his haunt: theſe dogs are extremely uſeful, as they warn the ſportſman to be upon his guard. Pointers, in general, ſtand at the cock, which is oftentimes very inconvenient, becauſe it cannot be known what is become of the dogs, or whereabout they are; and as they will not come away when they are ſet, on being called or whiſtled to, the ſhooter has frequently to wait for them until his patience is exhauſted. To obviate this inconvenience in ſhooting cocks with pointers, ſome ſportſmen faſten a ſmall bell about the neck or the tail of each dog, by the ſound of which he may be followed in the wood; and when the ſound ceaſes, the ſhooter knows that the dog is on the point, and is thereby enabled to gueſs the place where the dog is.

In this ſport it is very material to have a good marker. With this aſſiſtance, if the wood is ſmall, it will be difficult for the cock to eſcape; for it is known, that he will frequently ſuffer himſelf to be ſprung, and even ſhot at four or five times, before he will leave the wood to go to an adjoining one, or to a hedge-row.

During the day-time the woodcock remains in thoſe parts of the woods where there are void ſpaces, or glades, picking up earth-worms and grubs from amongſt the fallen leaves. When night comes on, he goes to drink and waſh his bill at the pools and ſprings; after which he gains the open fields and meadows, where he abides during the remainder of the night, and at break of day he returns to the wood. The ſportſman may therefore advantageouſly watch at ſome opening or cut which runs through the wood, and ſhoot him in his paſſage to and from it in the morning or evening flight; for it is remarkable, that whenever a woodcock ſprings from a wood to go into the open country, he always endeavours to find ſome paſs or glade, which he follows to its opening out of the wood; and when he returns back to the wood, he in like manner purſues a way for ſome time, and then turns to the right or left, oppoſite ſome glade, in order to drop in the thick part of the cover, where he may be under ſhelter from the wind. It is in theſe openings that nets are ſpread to take the woodcocks, in their morning and evening flights. They may alſo be watched with advantage, in the morning and evening flights, at thoſe narrow paſſes and little valleys on the edges of woods, which, by their direction, lead to ſome pool, ſpring, or head of a lake. Thoſe who know the cuſtom which the woodcock has in the evening of waſhing his bill in the pools which adjoin the woods, practiſe another method of killing them; which is, by watching near thoſe pools in the duſk of the evening, in order to ſhoot them as they alight. The pools or ſprings which are moſt frequented in this manner, are always known to the neighbouring peaſants; and it is eaſy to diſcover them, on examination, by the marks of their feet on the margins.

Woodcocks remain in this country until the middle of March, and may be found all the winter ſeaſon, if the weather is not too ſevere; but if froſts happen, which laſt ſome time, they will almoſt totally diſappear, at that interval, and a few only will be found by hazard, in certain places where there are warm ſprings, which do not freeze.

A month, or thereabouts, before their departure, it is common to ſee them in pairs, at the morning and evening flights, and to hear them, when flying, make a ſmall piping noiſe; although at other times they are quite mute. Since they are found in greater numbers in the month of March than in the middle of winter, it is probable that they aſſemble at that time in order to go abroad. Both woodcocks and quails have been known to breed in the ſouthern parts of this kingdom; but the inſtances are very rare.

Woodcocks are fatteſt in the months of *December* and *January*; but from the end of *February*, when they begin to pair, to the time of their departure, they are much leaner.

PENNANT, in the Supplement to his Arctic Zoology, informs us, that the female woodcock may be diſtinguiſhed from the male by a narrow ſtripe of white along the lower part of the exterior web of the outmoſt feather of the wing. The ſame part, in the outmoſt feather of the male, is elegantly and regularly ſpotted with black and reddiſh white. In the baſtard wing of each ſex is a ſmall pointed narrow feather, very elaſtic, and much ſought after by painters, as a pencil.

Of Snipe Shooting.

Snipes make their appearance here in autumn, and remain until the ſpring. It is generally ſuppoſed that they return into *Germany* aud *Switzerland* to breed. Nevertheleſs a great number remain with us during the ſummer, and breed in the marſhes, where they lay their eggs in the month of *June*, to the number of four or five. Snipes are ſcarcely worth ſhooting until the firſt froſt ſets in; and in the month of *November* they begin to grow very fat.

Theſe little birds, when they abound, afford very excellent ſport. It is remarked that ſnipes always fly againſt the wind, which is alſo the caſe with woodcocks; for this reaſon it is beſt to hunt for them as much as poſſible with the wind to the back, becauſe then they fly towards the ſportſman, and preſent a fairer mark.

The ſnipe is generally eſteemed difficult to ſhoot, by reaſon of the many turnings and twiſtings which it makes on being ſprung: but this difficulty exiſts only in the minds of inexperienced ſportſmen; for there are many birds more difficult to ſhoot flying. When once the ſhooter can accuſtom himſelf to let the ſnipe fly away, without his being in haſte, or alarmed, he will find that the flight is not more difficult to follow than that

that of the quail; and it is better to let him fly to ſome diſtance, becauſe the ſmalleſt grain of ſhot will kill him, and he will fall to the ground if ſtruck ever ſo ſlightly. Among the common ſnipes, ſome are larger than others. Theſe are thought to be the males. Snipes, however, are ſometimes found, which, from their extraordinary ſize, muſt neceſſarily be of a different ſpecies; but theſe are ſo rare, that they do not here require a particular deſcription.

Of Wild-Fowl Shooting.

This race of birds, if we include all thoſe which have the ſhape and conformation of the wild gooſe, duck, and teal, is extremely numerous; and there are no other birds which afford ſo many different ſpecies. But as of thoſe only the common wild duck are found in conſiderable numbers in England, we ſhall confine our deſcription principally to them.

Wild ducks are birds of paſſage, and arrive here in great flights from the northern countries in the beginning of winter. Still, however, a great many remain in our marſhes and fens during the whole year, and there breed. They pair in ſpring, and lay from ten to fifteen eggs. The duck commonly conſtructs her neſt at the edge of the water, upon ſome tuft of ruſhes which is a little elevated, and begins to lay in *March* or *April*. Her incubation is about thirty days, and the young ones are moſt commonly hatched in *May*. The growth of their wings is very ſlow; and they attain more than half their ſize before they are able to fly, which happens about the beginning of Auguſt, and near three months after the time of their being hatched. The wild duck differs little in plumage from the tame duck, but is eaſily diſtinguiſhed by its ſize, which is leſs; by the neck, which is more ſlender; by the foot, which is ſmaller; by the nails, which are more black; and, above all, by the web of the foot, which is much finer and ſofter to the touch. The young ducks of the firſt year are diſtinguiſhed from the old ones by the feet, which are more ſoft and ſleek, and of a brighter red. They may alſo be known by plucking a feather from the wing; for, if the duck is young, the root or end of the quill will be ſoft and bloody; of old, this extremity will be hard, without containing any bloody matter.

In the ſummer ſeaſon, when it is known that a team of young ducks are in a particular piece of water, and juſt beginning to fly, the ſportſman is ſure to find them early in the morning, dabbling at the edges of the pool, and amongſt the long graſs, and then he may get very near to them: it is uſual alſo to find them in thoſe places at noon. By means of a little boat they may be ſhot at any time of the day, and this method ſucceeds admirably well on ſmall pieces of water; for with the help of it they may all be killed. It may be ſtill more eaſy to effect this, if the ſportſman can contrive to kill the old duck; in that caſe he may tie a tame duck by the leg with a piece of packthread to a pin of wood driven into the ground at the edge of the pool: this muſt be done in ſuch a manner, that the duck may be able to ſwim a little way into the water. He muſt then conceal himſelf within gun-ſhot. The duck will ſoon begin to quack; and as ſoon as the young ones hear her they will come out to her, thinking it to be their mother.

If he wiſhes to take them alive, he has only to throw into the water, near to the tame duck, a few fiſh-hooks tied upon pieces of twine, and baited with pieces of the lights of a calf. The lines muſt be faſtened to pickets placed at the edge of the water. In the beginning of autumn almoſt every pool is frequented by teams of wild ducks, which remain there during the day, concealed in the ruſhes. If theſe pools are of ſmall extent, two ſhooters, by going one on each ſide, making noiſes, and throwing ſtones into the ruſhes, will make them fly up; and they will in this way frequently get ſhots; eſpecially if the pool is not broad, and contracts at one end. But the ſureſt and moſt ſucceſsful way, is to launch a ſmall boat or trow on the pool, and to traverſe the ruſhes, by the openings which are found; at the ſame time making as little noiſe as poſſible. In this manner the ducks will ſuffer the ſportſmen to come ſufficiently near them to ſhoot them flying; and it often happens that the ducks, after having flown up, only make a circuit, return in a little time, and again light upon the pool. Then the ſportſmen endeavour a ſecond time to come near them. If ſeveral ſhooters are in company, they ſhould divide, ſo that two ſhould go in the boat, whilſt the others ſpread themſelves near the edge of the pool, in order to ſhoot the ducks in their flight. In pools which will not admit a trow, water-ſpaniels are abſolutely neceſſary for this ſport, which ſhould be large ſtrong dogs.

Another good way to ſhoot ducks in winter, and eſpecially in froſt, at which time they fly about and are more in motion than any other, is to watch for them in the duſk of the evening, at the margins of little pools, where they come to feed; they may then either be ſhot whilſt they are on the wing, or at the moment in which they alight on the water. When the froſt is very ſevere, and the pools and rivers are frozen up, they muſt be watched for in places where there are warm ſprings, and waters which do not freeze. The ſport is then much more certain, becauſe the ducks are confined to thoſe places, in order to procure thoſe aquatic herbs which are almoſt the only food that remains for them at this period.

In times of great froſts, there are alſo ſmall rivers and brooks which do not freeze, and theſe afford abundant ſport. If the ſhooter follow the courſe of theſe waters at any time of the day, but particularly at an early hour of the morning, he will be certain to meet with wild-ducks, which are then frequently lying under the banks, and among the roots of trees which grow on the edges, ſearching for cray-fiſh and inſects; and the ducks will not get up until he is cloſe upon them, and ſometimes they will even lie until he has gone paſt, or are hunted up by his dogs.

Shooting Terms.

As the language of ſportſmen poſſeſſes a number of ſpecific names peculiar to itſelf, when ſpeaking of the various

various objects of their purſuit, it may not be improper to notice them in this place, as follows:

1. Covey of partridges. 2. Nide of pheaſants (commonly called *a ni.*) 3. Pack of grouſe. 4. Wiſp, or whiſp, of ſnipes. 5. Wing of plover. 6. Flock of geeſe. 7. Bevy of quails. 8. Flight of woodcocks. 9. Trip of dottrell. 10. Team of ducks. 11. Flock of buſtards.

Training of Sporting Dogs.

The dog, independent of the beauty and ſymmetry of his form, of his vivacity, and of his agility, eminently poſſeſſes all thoſe interior qualities that can gain the affections of man, whom he ſedulouſly ſeeks to pleaſe, and to whom he attaches himſelf with ſo much pleaſure and ſincerity. He approaches, in crouching and humble attitude, to lay at the feet of his maſter, his courage, his ſtrength, and his talents; he waits his commands to make uſe of them; for theſe he conſults him, he interrogates him, he ſupplicates him: a ſingle glance of the eye is ſufficient; he underſtands the ſignal of his will; he is all zeal, all ardour, all obedience: more ſenſible of kindneſs than of injury, he is neither repulſed nor diſcouraged by the worſt of treatment; he ſubmits to it, he forgets it, or at leaſt remembers it only to attach himſelf the more. Inſtead of being exaſperated, he willingly expoſes himſelf to new trials of ſeverity; he licks the hand that ſtrikes him; to it oppoſes only a mournful complaint, and at length diſarms it by patience and ſubmiſſion.

More tractable than man, the dog not only imbibes inſtruction in a ſmall ſpace of time, but readily conforms himſelf to the various motions, to the manners, and to all the habits, of the ſportſman who commands him. Of what infinite importance is the dog in the order of nature, ſuppoſing for an inſtant that he had never exiſted! Without him, how would man have been able to conquer, to ſubdue, and reduce to ſlavery, the ſavage animals of the foreſt? How could he at this day diſcover, chaſe, and deſtroy, the wild beaſts of the field? It is evident, that, to procure perfect ſafety, and to render himſelf maſter of the living univerſe, it would be neceſſary to begin by forming an union with thoſe animals whom he found capable of attachment and obedience, to the intent of oppoſing them to the others. One of the firſt arts of man hath therefore been the education of the dog; and the conſequence of this art hath been, the peaceable poſſeſſion of the earth.

Without the dog, man could not have dared pretend to ſuch a conqueſt, becauſe the greater part of animals have more agility, more ſwitneſs, more ſtrength, and even more courage, than man. Nature better provided and better armed them than him: they have ſenſe alſo, and the faculty of ſmelling in the moſt perfect degree. To have gained, therefore, a ſpecies of animals, courageous and docile as the dog, was to have acquired a new ſenſe, and faculties which were wanting to us; it was to have diſcovered great and eternal means of conqueſt; it was, in one word, to have immortaliſed the ſportſman and the art of the chaſe. After having thus become the advocate of the dog, and ſo warmly recommended him to the favour of his maſter; let not the falſe and affected friends of humanity be alarmed at the modes of diſcipline which are hereafter deſcribed, and even approved; nor perſuade themſelves to think that they are incompatible with the finer feelings, and unjuſtifiable on the principle of ſport. They are but means to prevent a greater evil; the natural faculties of the dog muſt be trained to their proper object and purpoſe; he is by nature wild and depredatory; he will ſometimes return to his natural hankering; and we venture to pronounce that the man of feeling would, at the ſight of ſheep worried in the fold, and of pigs and poultry in the farm-yard, acknowledge the truth of the old adage, and follow its dictates—"of two evils to chooſe the leaſt:" and, were he either in the ſituation of the owner of the dog, or the ſufferer by his actions, he would equally countenance the ſeverities alluded to, and acknowledge them to be ſalutary modes for the correction and prevention of ſuch vicious habits. There is, however, one circumſtance relating to the œconomy of this animal and his dependence on man, which would honourably engage the feelings and the knowledge of thoſe capable, by profeſſional education, to undertake the taſk; we mean, an inveſtigation of the various diſeaſes to which dogs are ſubject (we ſay various, becauſe we do not ſubſcribe to that old but erroneous judgment which calls every diſorder, with which a dog is afflicted, by the general name of the *diſtemper*), and thereby to form a rational ſyſtem of treatment. It is really ſurpriſing that no one has hitherto attempted this humane office; to many we are convinced it might be extremely eaſy. The whimſicality and rage of the preſent hour furniſh us with a variety of bombaſtic writers and treatiſes upon the means of prevention, as well as the method of curing diſeaſes incidental to horſes: it has alſo, in a lucky hour, given birth to a ſociety or college of Veterinarians, inſtituted for the expreſs purpoſe of improving the art of farriery, and, to this end, ſoliciting communications, from all the world, of any important information or uſeful diſcovery which may conduce to the improvement and extenſion of that branch of ſcience. As ſportſmen, may we not be permitted to ſay, that the horſe is not a more uſeful, nor a more noble, animal than the dog? For the ſake of humanity, then, and for the enlarging of knowledge, we recommend and intreat this reſpectable and uſeful ſociety to extend their plan, and to invite communication on the nature and cure of the diſeaſes to which this worthy and affectionate creature is peculiarly ſubject, and ſubject, we are ſorry to ſay, at this time, without any one rational mode of treatment for the alleviation of pain, or the removal of complaint. For him, a ſmall ſpace of time intervenes between the adminiſtration of the moſt violent, improper, and inapplicable remedies, and the more humane but ſtill brutal one of the rope. Thus is a period barbarouſly put to his various miſeries, and thus is he, to the laſt, *treated as a dog*. We are perſuaded that the diſeaſes of dogs are generally produced by the little care taken of them, and this at leaſt may be eaſily remedied.

With

With reſpect to breaking of dogs, there are three ſpecies capable of receiving the proper inſtruction, and of being trained. Theſe are, the ſmooth pointer, the ſpaniel, and the rough pointer. The laſt is a dog with long curled hair, and ſeems to be a mixed breed of the water-dog and the ſpaniel. The ſmooth pointer is active, and lively enough in his range, but in general is proper only for an open country. The greateſt part of theſe dogs are afraid of water, brambles, and thickets; but the ſpaniel and the rough pointer are eaſily taught to take the water, even in the coldeſt weather, and to range the woods, and rough places, as well as the plain. Greater dependence may therefore be had on theſe two laſt ſpecies of dogs, than on the ſmooth pointer.

Before you begin to break-in a dog, it will be proper, when he is only five or ſix months old, to teach him to fetch and carry, which may eaſily be done without going out of the houſe, by means familiar to every one. With patience and gentle treatment, if the dog is of a good breed and diſpoſition, he will acquire the habit very eaſily; but much gentle uſage is neceſſary at this time, and, if the dog ſhould be obſtinate in learning his leſſons, ſeverity and correction ſhould be carried only to a certain point. Therefore, as you perceive him to be diſheartened, let him reſt, beſtow careſſes on him, and return to the taſk another time.

If, however, this taſk cannot be accompliſhed by mild treatment, you muſt wait until the dog is of a proper age to be regularly trained; for then, in caſe of great obſtinacy, he will be able to bear the ſtrong collar, and thoſe other modes of neceſſary diſcipline.

It will, at the ſame time that you teach the dog to fetch and carry, alſo be proper to give him the firſt principles of obedience; which may be accompliſhed by walking with him a little diſtance from the houſe, and there learning him to come in, when he runs too far off; and to go behind when he returns; uſing, in the firſt caſe, the words, *here*, *come in*; and, in the latter, *back*, or *behind*. It is alſo highly neceſſary to accuſtom the dog, at this period, to be tied up in a kennel or ſtable, where you ſhould be careful to renew his ſtraw frequently. But, in theſe firſt eſſays, he ſhould not be kept tied up too long, in conſideration of his tender age, which ſeems to require ſome indulgence; he ſhould, therefore, be let looſe in the morning, and faſtened up again in the evening. Dogs, which are not early accuſtomed to be chained up, diſturb you with their howling. It is alſo of importance, that the perſon who intends to train him ſhould alone ſpeak to him and command him, and that none other ſhould interfere with his education, or give him his food.

When the dog has attained the age of ten or twelve months, it will be high time to take him into the field, for the purpoſe of regular training. At the firſt you may let him do as he likes, without requiring any thing of him, the firſt ſtep being only to make him know his game. He will, at this time, run after every thing he ſees; crows, pigeons, thruſhes, ſmall birds, partridges, and hares. This eagerneſs being ſomewhat abated, he will end by only purſuing the partridge and hares, to the former of which his natural inſtinct will more particularly attach him; and, being ſoon tired with following after theſe in vain, he will be content, after having fluſhed the birds, to follow them with his eyes. He will not, however, do the ſame with hares; for ſeeing they have but legs like himſelf, and do not leave the ground like a partridge, he perceives that there is more equality with himſelf, and will not relinquiſh the hope of overtaking them: for this reaſon, he will continue the practice of running after hares until corrected by education; and even then, it is very difficult to prevent the moſt crafty and beſt-trained dog from purſuing hares.

All young dogs are ſubject to *rake*, that is, to hunt with their noſes cloſe to the ground: a habit which you ſhould not ſuffer them to contract, and of which you ſhould effectually break them betimes, if it is poſſible to be done; for a dog that rakes with his noſe, and follows the game by the track, will never make a good pointer, nor find half ſo much game as one that hunts with his noſe high. Whenever, therefore, you perceive that your young dog is following the track of a partridge down wind, call to him with an angry tone, hold up; he will then grow uneaſy and agitated, going firſt on one ſide, and then on the other, until the wind brings him the ſcent of the birds. He will only have to find the game four or five times in this way, when he will take the wind of himſelf, and hunt with his noſe high. Yet, there are dogs which it is almoſt impoſſible to break of this fault, and ſuch are ſcarcely worth the training. The beſt method to be uſed with a dog of that deſcription is, to put the puzzle-peg upon him. This is an inſtrument of a very ſimple conſtruction, being no other than a piece of oak or deal inch-board, one foot in length, and an inch and a half in breadth, tapering a little at one end; at the broader end are two holes, running longitudinally, through which the collar of the dog is put, and the whole is buckled round his neck; the piece of wood being projected beyond his noſe, is then faſtened with a piece of leather thong to his under jaw. By this means, the peg advancing ſeven or eight inches beyond his ſnout, the dog is prevented from putting his noſe to the ground and raking. This inſtrument is alſo proper for dogs that tear the game; and ſometimes has been found to make a dog, that is too eager, and poſſeſſing the bad habit of running up to the foremoſt dog in the point, ſtand better in company.

Partridges lie much better to dogs which wind them than to thoſe that follow them by track. The dog that winds the ſcent approaches the birds by degrees, and that, more or leſs, as he finds them either ſhy or tame, or, in other words, whether they will lie well, which he is enabled to know by the ſcent which they emit when they are uneaſy; and, notwithſtanding they ſee him hunt round abound them, they will not be alarmed, becauſe they do not perceive that he is following them.

Nothing diſturbs birds more than their ſeeing a dog tracing their footſteps, and keeping the ſame courſe that they are taking to ſteal off; and, when a dog follows them in this manner down wind, it moſt commonly happens that he flushes them; or, if by acci-

dent he makes a point, it will probably be much too near the birds; for, in going down wind, he cannot take the ſcent until he is almoſt upon them, and then they will not lie.

As ſoon as the young dog knows his game, you muſt bring him under complete ſubjection and command. If he is naturally tractable, and has profited from the inſtructions you have given him before his being taken into the field, it will be eaſy to accompliſh it; but, if he is ſtubborn and unruly, it will be neceſſary to make uſe of the traſh-cord. This is done by only faſtening to the collar of the dog, a rope or cord, of about twenty, or twenty-five fathom in length, and then letting him range about with this dragging on the ground. By the help of this cord, you will be able to keep him in whenever you call to him, which you ſhould never do but when you are within reach of it; and then, if he ſhould continue to run forward, you muſt check him ſmartly with the cord, which will often bring him upon his haunches. When you have repeated this a few times, he will not fail to come in immediately on being called; you ſhould then careſs him, and give him a bit of bread, and continue to do ſo whenever he comes in on being called to. After this, in order to accuſtom him to croſs and range before you, turn your back to him, and walk on the oppoſite ſide; when he loſes ſight of you, he will come to find you; he will be agitated and afraid of loſing you, and will, in ranging, turn his head, from time to time, to obſerve whereabouts you are. Eight days practice of this manœuvre, will make him range on whatſoever ſide you pleaſe, by only giving him a ſign with the hand.

When the dog is arrived at this point of inſtruction, be careful to keep him conſtantly tied up; never unchain him but when you give him his food, and not always then, but at thoſe times only that he has done ſomething to deſerve it. The next ſtep will be to throw down a piece of bread on the ground, at the ſame moment taking hold of the dog by the collar, calling out to him, take heed, ſoftly. After having held him in this manner for ſome ſpace of time, ſay to him, ſeize, lay hold. If he is impatient to lay hold of the piece of bread before the ſignal is given, correct him gently with a ſmall whip. Repeat this leſſon until he takes heed well, and no longer requires to be held faſt to prevent him from laying hold of the bread. When he is well accuſtomed to this menage, turn the bread with a ſtick, holding it in the manner you do a fowling-piece, and having done ſo, cry, ſeize! Never ſuffer the dog to eat, either in the houſe or field, without having firſt made him take heed in this manner.

Then, in order to apply this leſſon to the game, fry ſmall pieces of bread in hog's-lard, with the dung of a partridge; take theſe in a linen bag into the fields, ſtubbles, ploughed grounds, and paſtures, and there put the pieces in ſeveral different places, marking the ſpots with little cleft pickets of wood, which will be rendered more diſtinguiſhable by putting pieces of card in the nicks. This being done, caſt off the dog, and conduct him to theſe places, always hunting in the wind. After he has caught the ſcent of the bread, if he approaches too near, and ſeems eager to fall upon it, cry to him in a menacing tone, take heed; and, if he does not ſtop immediately, correct him with the whip. He will ſoon comprehend what is required of him, and will ſtand. At the next leſſon, take your gun charged only with powder, walk gently round the piece of bread once or twice, and *fire*, inſtead of crying, *ſeize*. The next time of practiſing this leſſon, walk round the bread four or five times, but in a greater circle than before, and continue to do this until the dog is conquered of his impatience, and will ſtand without moving until the ſignal is given. When he keeps the point well, and ſtands ſteady in this leſſon, you may take him to find the birds; if he runs in upon them, or barks when they ſpring up, you muſt correct him; and, if he continues to do ſo, you muſt return to the fried bread: but this is ſeldom neceſſary.

There are many dogs that will point the firſt day they are taken out; and there are others that will point and back the firſt time, by natural inſtinct. But, to make the dog ſtaunch, you ſhould endeavour to kill a few birds on the ground before him, and ſhould not ſhoot flying until he is well trained and ſteady. This, however, can only be done when the dog is broke in during the ſhooting ſeaſon. The ſpring is the beſt time for training dogs; becauſe the birds, being paired, lie better, and, being ſprung more ſeldom, and fewer in number, the dog is not ſo ſubject to be eager, and is kept under command with greater eaſe. But, as this ſeaſon ſcarcely allows time to make the dog perfect and ſtaunch, you muſt reſume his leſſons in the month of *September*, or the latter end of *Auguſt*, which will ſoon complete him. Another method uſed to break in a dog is, with a cord of the ſame length as the former, and the ſtrong collar. This collar is made of a ſtrong leather ſtrap, and ſtuck with three rows of ſmall nails, the points of which extend three or four lines of an inch beyond the ſurface of the inſide; a ſtrong piece of leather is then put over the heads of the nails, on the outſide of the collar, in order to prevent their ſtarting back, when the dog preſſes upon the points. A ring is faſtened to each end of this collar, for, if it were buckled like a common one, it would perpetually wound the dog; through theſe rings, therefore, is paſſed one end of the cord, in ſuch a manner, that, in pulling towards you, the rings bring the collar cloſe; the nails then preſs upon his neck, and warn him of his fault.

As ſoon as the dog is inſtructed to take heed of the bread, in the way before explained, you muſt take him into the fields with the ſtrong collar on his neck, and the traſh-cord dragging on the ground; be careful not to let him range too wide, but keep him within ſuch a diſtance that you can always lay hold of the cord at thoſe times when it may be neceſſary to check him. When the firſt birds are ſprung to the dog, if he runs after them, or barks, give him a few checks, calling out to him, take heed. If he ſtands at them, then careſs him; but you ſhould never hunt him with the cord until he points ſtaunch.

When once a dog is taught to point at partridges, he will ſtand at every ſort of winged game, and even at hares; yet, as before remarked, it is very difficult to

prevent

prevent dogs from running after hares, whether they ſtart at a diſtance or after the dog has pointed them, eſpecially if he is at ſome diſtance from his maſter, who will, in that caſe, try in vain to make him come in; for, when a dog perceives his maſter a good way off, he will not ſo readily obey his voice as when he is near him. It is not eaſy to correct dogs of this fault (if it may be accounted ſuch) except in places where there are many hares, for there, by ſeeing them frequently, he gets tired of purſuing them. Beſides, to keep a dog in the habit of not running after hares, he muſt be hunted only in open grounds; for, if you once carry him into a wood, he will be certain to run after both hares and rabbits, and then, when you return to the open fields, he will do as he did in the wood.

There are few dogs that will not ſometimes break in upon the birds, particularly when hunting down the wind; you ſhould, therefore, when he does ſo, only ſpeak roughly to him, and not chaſtiſe him, unleſs, indeed, he runs after the birds; in that caſe, mark the place from which they got up, for the dog will ſoon return thither, and then you muſt chaſtiſe him with the whip, but with moderation, which is always neceſſary, and particularly ſo if the dog is timid.

There are dogs of this nature, which, if you beat them exceſſively, will lie down at your feet, and will hunt no more: others again leave you and run home. In the laſt caſe, one mode of correction is, to have a ſtake fixed in the middle of the yard, furniſhed with a chain and collar; when the dog arrives, a ſervant, previouſly inſtructed, ſhould faſten him to the ſtake, and give him a ſound beating, which ſhould be repeated at intervals for the ſpace of an hour. During this operation the maſter ſhould not appear, but remain without ſhewing himſelf, until ſome time after the laſt correction, in order that the anger of the dog may have time to ſubſide. Then he ſhould go up to him, careſs him much, unchain him, give him ſome food, and afterwards take him back to the field. However, this mode is not ſo infallible as many have aſſerted; for it often happens, that the dog, who has thus received the ſtrappadoes, the next time he arrives at the houſe, after having run away, ſlinks off, and lurks in ſome hole, without your knowing what is become of him, and does not make his appearance again for a long while. The beſt way is, to ſtudy the temper and diſpoſition of the dog, and to conduct yourſelf accordingly in the application of correction.

We have before ſaid, that when you cannot ſucceed in teaching a dog his firſt leſſons at an early age, by gentle treatment, it is neceſſary to wait till he is older, and then to make uſe of the ſtrong collar; here then is the beſt mode of uſing it: take a ſquare piece of wood, of about eight eight or nine inches in length, and one inch in thickneſs, cut notches on the edges like the teeth of a ſaw, and bore two holes at each end, in order to fix two ſmall pegs croſs-wiſe, ſo that, when this piece of wood is thrown on the ground, the pegs may ſupport and raiſe it above the ſurface a full inch, the purpoſe of which is, to enable the dog to mouth it the more eaſily. The ſtrong collar ſhould then be put about his neck, and, taking the ſtick, rub the notches backwards and forwards on his teeth, to make him open his mouth; but do it gently, to hurt him as little as poſſible: when he has taken it into his mouth, hold you left hand under his chaps, in order to prevent his putting it out, and with the right careſs and pat him, crying, take heed. If, when you take away your hand from under his mouth, the dog lets fall the ſtick, ſpeak harſhly to him, and check the collar to chaſtiſe him; then make him take the ſtick in the ſame manner as before. The dog, thus perceiving that he is puniſhed when he drops the ſtick, and careſſed when he retains it, will at length accuſtom himſelf to hold it, and will open his mouth when you preſent it to him. You muſt then proceed to make him take it himſelf, by preſenting it to him, crying, at that inſtant, lay hold; at the ſame time you ſhould careſs him much, and now and then give him little checks, to make him more alert, and come forward more expeditiouſly.

If, in practiſing this leſſon, the dog advances of his own accord, and takes the ſtick, careſs him again, and give him a little bit of food. When he begins to put forward his head an inch or ſo, he is then ſufficiently broken in to this manœuvre, and will ſoon take the ſtick from the ground, in doing which you muſt firſt ſay to him very loud, lay hold; and, afterwards, bring here. In order to habituate the dog in this exerciſe, when he has advanced ſo far as to bring the ſtick readily, you ſhould ſometimes ſubſtitute in the place of the piece of wood, the wing of a partridge ſewed upon a linen cuſhion, and at other times the ſkin of a hare ſtuffed with hay, in each end of which you ſhould put a ſtone, to accuſtom him to carry a hare by the middle of the body. At length, when he brings every thing readily to you, take him into the field, and make him bring the firſt bird that you kill to you; if he requires much intreaty, put the ſtrong collar on him, which, in caſe of need, you ſhould carry along with you.

To teach a dog to take the water, chooſe a pool, the edges of which gently decline; throw a piece of wood into it at firſt, but to ſo ſmall a diſtance from the ſide that he may be able to reach it by only wading to his mid-leg. Afterwards increaſe the diſtance by degrees, until he ſwims to take it; be careful at each time that he brings the piece of wood to you, to give him ſomething to eat. If he will not venture to ſwim, you muſt take another courſe; take him to the pool before he has breakfaſted, and throw pieces of bread into the water, gradually increaſing the diſtance as before, and, by this method, you will ſoon teach him to earn his breakfaſt by ſwimming.

To complete this training, if you have a piece of water of ſufficient depth, put a wild-duck into it with the wings cut, then animate and encourage the dog until he goes into the water to follow the duck, which will ſwim before him, and ſometimes dive when followed cloſe, in order to diſengage herſelf from the purſuit. When this menage has laſted ſome time, finiſh it by ſhooting the duck, and the dog will not fail to bring it to you very readily. Theſe leſſons, however, ſhould be given in warm weather, for you will ſcarcely prevail on any pointer to go into the water in winter; even the

attempt alone might give him a dread of it; but, at all events, if he refuſes to take the water, you ſhould never throw him in. The ſportſman has only to conduct himſelf with patience and moderation, and obſerve the rules here laid down, and he will accompliſh his work. To make a dog back and ſtand in company, you ſhould hunt him with an old ſtaunch dog; and then, with a ſmall application of the principles of training, you will eaſily effect this neceſſary qualification.

Young dogs, for the moſt part, love to run after poultry, and ſome after ſheep; theſe are faults which it is abſolutely neceſſary to correct betimes. As to the poultry, if you cannot make your dog leave off the cuſtom of chacing them, by virtue of the whip the following method will do it: take a ſmall ſtick, cleft at one end ſufficiently wide to admit the tail of the dog, which being introduced, tie the cleft end with a piece of twine tight enough to make him feel pain: at the other end of the ſtick tie a fowl by the wing; then, after a little time, let the dog looſe, at the ſame inſtant give him a few heavy ſtrokes with a whip. The dog will then run as faſt as he can, by reaſon of the pain in his tail, which he imagines is cauſed by the fowl. By dint of dragging the fowl, he will kill it, and, ſpent with running, he will ſtop, and afterwards hide himſelf in ſome hole; then take off the ſtick, and beat him about the mouth and head with the dead fowl.

If the dog runs after ſheep, and you cannot break him of the cuſtom, couple him with a ram, and, in letting them looſe, whip the dog as long as you can follow him. His cries will firſt alarm the ram, who will run with all ſpeed, and drag the dog along with him; but he will ſoon take courage, and will end with butting the dog moſt ſeverely. When you think the dog has received ſufficient correction, uncouple him, and he will never run at ſheep again. *See alſo the article* POINTERS.

Of the Manufacture and Perfections of a Fowling-Piece.

To form a gun-barrel in the manner generally practiſed for thoſe denominated common, the workmen begin by heating and hammering out a bar of iron into the form of a flat ruler, thinner at the end intended for the muzzle, and thicker at that for the breech; the length, breadth, and thickneſs, of the whole plate, being regulated by the intended length, diameter, and weight of the barrel. This oblong plate of metal is then, by repeated heating and hammering, turned round a cylindrical rod of tempered iron, called a mandril, whoſe diameter is conſiderably leſs than the intended bore of the barrel. The edges of the plate are made to overlap each other about half an inch, and are welded together by heating the tube in lengths of two or three inches at a time, and hammering it, with very briſk but moderate ſtrokes, upon an anvil which has a number of ſemicircular furrows in it, adapted to the various ſizes of barrels. The heat required for welding is, the bright white heat, which immediately precedes fuſion, and at which the particles of the metal unite and blend ſo intimately with each other, that, when properly managed, not a trace is left of their former ſeparation: this degree of heat is generally known by a number of brilliant ſparks flying off from the iron whilſt in the fire; although it requires much practice and experience to aſcertain the degree of heat required for welding iron, which poſſeſſes various qualities, and is ſeldom alike. Every time the barrel is withdrawn from the forge, the workman ſtrikes the end of it once or twice gently againſt the anvil in a horizontal direction: this operation, which the Engliſh artiſts term *jumping*, the French, *eſtoquer*, ſerves to conſolidate the particles of the metal more perfectly, and to obliterate any appearance of a ſeam in the barrel. The mandril is then introduced into the bore or cavity; and the barrel, being placed in one of the furrows or moulds of the anvil, is hammered very briſkly by two perſons beſides the forger, who all the time keeps turning the barrel round in the mould, ſo that every point of the heated portion may come equally under the action of the hammers.—Theſe heatings and hammerings are repeated until the whole of the barrel has undergone the ſame operation, and all its parts are rendered as perfectly continuous as if it had been bored out of a ſolid piece.

The imperfections to which a gun-barrel is liable in forging, are of three kinds, viz. the chink, the crack, and the flaw. The chink is a ſolution of continuity, running lengthwiſe of the barrel. The crack is a ſolution of continuity, more irregular in its form than the chink, and running in a tranſverſe direction, or acroſs the barrel. The flaw differs from both: it is a ſmall plate or ſcale, which adheres to the barrel by a narrow baſe, from which it ſpreads out as the head of a nail does from its ſhank; and, when ſeparated, leaves a pit or hollow in the metal.

With regard to the ſoundneſs of the barrel, the chink and flaw are of much greater importance than the crack, as the effort of the powder is exerted upon the circumference, and not upon the length, of the barrel. In a ſword or bow, the very reverſe of this takes place; for if a crack, though but of a ſlight depth, occurs in either, it will break at that place when bent but a very little; becauſe the effort is made upon the fibres diſpoſed longitudinally; whereas, if the fault be a chink, or even a ſlight flaw, the ſword or bow will not give way. The flaw is much more frequent than the chink; the latter ſcarcely ever occurring but in barrels forged as above, in which the fibres of the metal run longitudinally; and then only when the iron is of an inferior quality. When external and ſuperficial, they are all defects in point of neatneſs only; but, when ſituated within the barrel, they are of a material diſadvantage, by affording a lodgment to moiſture and foulneſs that corrode the iron, and thus continually enlarge the excavation until the barrel burſts, or becomes dangerous to uſe.

The barrel, when forged, is either finiſhed in the common manner, or made to undergo the operation of twiſting, which is a proceſs employed on thoſe barrels that are intended to be of a ſuperior quality and price to others. This operation conſiſts in heating the barrel, in portions of a few inches at a time, to a high degree

degree of red heat; when one end of it is ſcrewed into a vice, and into the other is introduced a ſquare piece of iron with a handle like an augur; and, by means of theſe, the fibres of the heated portion are twiſted in a ſpiral direction, that is found to reſiſt the effort of the powder much better than a longitudinal one.

To perſons unacquainted with the loſs which iron ſuffers in forging, it will be a matter of ſurpriſe that 12 pounds of iron are required to produce a barrel, which, when finiſhed, ſhall not weigh more than two pounds, or two pounds and a half. But, although a conſiderable waſte is unavoidable, yet the quantity of it depends very much upon the quality of the iron, upon that of the coal, and upon the knowledge and dexterity of the workman. In *Spain* they cannot work but with charcoal of wood; in *France* they employ pit-coal charred, or coke; in *England* they uſe pit-coal without being charred, but are very careful to have it of the pureſt kind, ſome ſorts containing a portion of ſulphur and arſenic which render the metal altogether unmalleable, or, in the language of the workmen, poiſon the iron.

A circumſtance of conſiderable importance to the excellence of a barrel is, the forging it as near as can be to the weight it is intended to be of when finiſhed, ſo that very little be taken away in the boring and filing; for, as the outer ſurface, by having undergone the action of the hammer more immediately than any other part, is rendered the moſt compact and pure, we ſhould be careful to remove as little of it as poſſible: the ſame thing holds, though in a leſs degree, with regard to that portion of the inſide of the barrel which is to be cut out by the boring inſtrument.

Piſtol barrels are forged in one piece, and are cut aſunder at the muzzles after they have been bored; by which there is not only a ſaving of iron and of labour, but a certainty of the caliber being perfectly the ſame in both.

The next operation conſiſts in giving to the barrel its proper caliber: this is termed boring. The boring-bit is a rod of iron, ſomewhat longer than the barrel; one end being made to fit the ſocket of the crank, and the other being furniſhed with a cylindrical plug of tempered ſteel, about an inch and a half in length, and having its ſurface cut in the manner of a perpetual ſcrew, the threads being flat, about a quarter of an inch in breadth, and running with very little obliquity. This form gives the bit a very ſtrong hold of the metal; and the threads, being ſharp at the edges, ſcoop out and remove every roughneſs and inequality from the inſide of the barrel, and render the cavity ſmooth and equal throughout. A number of bits, each a little larger than the preceding one, are afterwards ſucceſſively paſſed through the barrel in the ſame way, until it has acquired the intended caliber. The equality of the bore is ſo eſſential to the excellence of a piece, that the greateſt accuracy in every other particular will not compenſate for the want of it. Any perſon who wiſhes to know the merit of his piece in this reſpect, may do it with tolerable accuracy, by means of a plug of lead, caſt on a rod of iron or wood; or even by a muſket ball, filed ſo as to fit the bore exactly, and puſhed through the barrel by the ram-rod, care being taken not to uſe an iron ram-rod, or much force, leſt the ball be flattened, and an artificial difficulty created.

The barrel may now be conſidered as quite finiſhed with regard to its inſide: at leaſt it has nothing more to be done to it by the maker. The gunſmiths, however, generally make it undergo a further operation of poliſhing; after which it is in a condition to receive its proper form and proportions externally, by means of the file. To do this with accuracy, four flat ſides or faces are firſt formed; then eight, then ſixteen, and ſo on, until it is made quite round; except the reinforced part, which in moſt of the modern work is left with eight ſides. This octagonal form of the reinforced part is certainly more elegant than the round one formerly in uſe: but it adds to the weight of the barrel without increaſing its ſtrength; for the effort of the powder will always be ſuſtained by the thinneſt part of the circumference, without any regard to thoſe places that are thicker than the reſt.

It is abſolutely neceſſary to the ſoundneſs of a barrel, that it ſhould be of an equal thickneſs on every ſide; or, in the language of the workmen, a barrel ought to be perfectly upright. In order to arrive, as nearly as poſſible, to this perfect equality, the gunſmiths employ an inſtrument which they call a compaſs. It conſiſts of an iron rod bent ſo as to form two parallel branches about an inch diſtant from each other. One of theſe branches is introduced into the barrel, and kept cloſely applied to the ſide by means of one or more ſprings with which it is furniſhed: the other branch deſcends parallel to this, on the outſide, and has ſeveral ſcrews paſſing through it with their points directed to the barrel. By ſcrewing theſe until their points touch the ſurface of the barrel, and then turning the inſtrument round within the bore, it is ſeen where the metal is too thick, and how much it muſt be reduced in order to render every part of the barrel perfectly equal throughout its circumference. To form the ſcrew in the breech-end of the barrel, the firſt tool employed is a plug of tempered ſteel, ſomewhat conical, and having upon its ſurface the threads of a male ſcrew. This tool, which is termed a ſcrew-tap, being introduced into the barrel, is turned from left to right, and back again, until it has marked out the three or four firſt threads of the ſcrew: another leſs conical tap is then introduced; and when this has carried on the impreſſion of the ſcrew as far as it is intended to go, a third tap is employed, which is nearly cylindrical, and ſcarcely differs from the plug of the breech which is intended to fill the ſcrew thus formed in the barrel. The breech-plug has its ſcrew formed by means of a ſcrew-plate made of tempered ſteel, and has ſeveral female ſcrews correſponding with the taps employed to form that in the barrel. A plug of ſeven or eight threads is ſufficiently long; and the threads ought to be neat and ſharp, ſo as to fill completely the turns made in the barrel by the tap. The breech-plug is afterwards caſe-hardened, or has its ſurface converted into ſteel, by being covered over with ſhavings of horn, or parings of horſe-hoof, and kept red-hot in the fire for ſome time, after which it is plunged into water.

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The next operation conſiſts in giving to the barrel its proper caliber: this is termed boring. The boring-bit is a rod of iron, ſomewhat longer than the barrel; one end being made to fit the ſocket of the crank, and the other being furniſhed with a cylindrical plug of tempered ſteel, about an inch and a half in length, and having its ſurface cut in the manner of a perpetual ſcrew, the threads being flat, about a quarter of an inch in breadth, and running with very little obliquity. This form gives the bit a very ſtrong hold of the metal; and the threads, being ſharp at the edges, ſcoop out and remove every roughneſs and inequality from the inſide of the barrel, and render the cavity ſmooth and equal throughout. A number of bits, each a little larger than the preceding one, are afterwards ſucceſſively paſſed through the barrel in the ſame way, until it has acquired the intended caliber. The equality of the bore is ſo eſſential to the excellence of a piece, that the greateſt accuracy in every other particular will not compenſate for the want of it. Any perſon who wiſhes to know the merit of his piece in this reſpect, may do it with tolerable accuracy, by means of a plug of lead, caſt on a rod of iron or wood; or even by a muſket ball, filed ſo as to fit the bore exactly, and puſhed through the barrel by the ram-rod, care being taken not to uſe an iron ram-rod, or much force, leſt the ball be flattened, and an artificial difficulty created.

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The laſt operation is that of colouring the barrel, previous to which it is poliſhed with fine emery and oil, until it preſents to the eye, throughout its whole length, and in whatever direction we obſerve it, a perfectly ſmooth, equal, and ſplendid ſurface. Formerly barrels were coloured by expoſing them to a degree of heat which produced an elegant blue tinge; but, as this effect ariſes from a degree of calcination taking place upon the ſurface of the metal, the inſide of the barrel always ſuffered by undergoing the ſame change. This, therefore, added to the painful ſenſation excited in the eye by looking along a barrel ſo coloured, has cauſed the produce of blueing to be diſuſed for ſome time paſt. Inſtead of it, barrels are now browned, as it is termed. To do this, the barrel is rubbed over with aqua fortis, or ſpirit of ſalt, diluted with water, and laid by until a complete coat of ruſt is formed upon it; a little oil is then applied; and the ſurface, being rubbed dry, is poliſhed by means of a hard bruſh and bees-wax.

When the barrels intended for a double-barrelled piece are dreſſed to their proper thickneſs, which is generally leſs than for ſingle barrels, each of them is filed flat on the ſide where it is to join the other, ſo that they may fit cloſely together. Two correſponding notches are then made at the muzzle and breech of each barrel; and into theſe are fitted two ſmall pieces of iron, to hold them more ſtrongly together. The barrels being united by tinning the parts where they touch, the ribs are fitted in, and made faſt by the ſame means. Theſe ribs are the triangular pieces of iron which are placed between the barrels, running on the upper and under ſides their whole length, and ſerving to hold them more firmly together. The under rib is a late improvement, and is found more effectually to prevent the barrels from warping. When the barrels are thus joined, they are poliſhed and coloured in the manner already deſcribed.

The twiſted barrels are deſervedly celebrated for their ſuperior elegance and ſtrength, as well as for the accuracy with which they throw either ball or ſhot. The iron employed in them is formed of ſtubs, which are old horſe-ſhoe nails, procured from country farriers, and from poor people who gain a ſubſiſtence by picking them up on the great roads leading to the metropolis. Theſe are originally formed from the ſofteſt and toughеſt iron that can be had; and this is ſtill farther purified by the numerous heatings and hammerings it has undergone in being reduced from a bar into the ſize and form of nails. They coſt about ten ſhillings the hundred weight, and twenty-eight pounds are required to make a ſingle barrel of the ordinary ſize. A hoop of iron, about an inch broad, and ſix or ſeven inches diameter, is placed perpendicularly; and the ſtubs, previouſly freed from dirt by waſhing, are neatly piled in it, with their heads outermoſt on each ſide, until the hoop is quite filled and wedged tight with them; the whole reſembling a rough circular cake of iron. This is put into the fire until it has acquired a white heat; when it is hammered, either by the ſtrength of the arm, or by the force of machinery, until it coaleſces, and becomes one ſolid maſs of iron: the hoop is then removed, and the heatings and hammerings repeated, until the iron, by being thus wrought and kneaded, is freed from every impurity, and rendered very tough and cloſe in the grain: the workman then proceeds to draw it out into pieces of about twenty-four inches in length, half an inch or more in breadth, and half an inch in thickneſs.

Theſe pieces, however, are not all of the ſame thickneſs; ſome being more and others leſs than what we have mentioned, according to the propoſed thickneſs of the barrel, and that part of it which the piece is intended to form. One of theſe pieces, being heated red-hot for five or ſix inches, is turned like a corkſcrew, without any other tools than the anvil and hammer. The remaining portions are ſucceſſively treated in the ſame manner, until the whole piece is turned into a ſpiral, forming a tube whoſe diameter correſponds with that of the intended barrel. Four of theſe are generally ſufficient to form a barrel of the ordinary length, which is from thirty-two to thirty-eight inches; and the two which form the breech or reinforced part, are conſiderably thicker than thoſe which conſtitute the fore-part, or muzzle of the barrel. The workman firſt welds one of theſe tubes to a part of an old barrel, which ſerves as a handle. He then proceeds to unite the turns of the ſpiral to each other, by heating the tube two or three inches at a time, to a bright white heat, and ſtriking the end of it ſeveral times againſt the anvil in a horizontal direction, and with conſiderable force: this is termed jumping the barrel; and the heats given for the purpoſe are called jumping heats. A mandril is then introduced into the cavity; and the heated portion is hammered lightly, to flatten the ridges or burs raiſed by the jumping at the place where the ſpirals are joined. As ſoon as one piece is jumped its whole length, another is welded to it, and treated in the ſame manner, until the four pieces are united; when the part of the old barrel, being no longer neceſſary, is cut off. The welding the turns of the ſpiral is performed exactly in the ſame manner as before deſcribed, and is repeated three times. The barrel is afterwards finiſhed in the ſame way as a common one. Stub-iron is alſo wrought into plain barrels; which, as they require a great deal leſs labour are only half the price of the twiſted ones.

The *canons à rubans*, or *ribbon-barrels*, of the French, very much reſemble the Engliſh twiſted barrels. The proceſs purſued in their formation is conſiderably more operoſe than that juſt deſcribed, but ſeems to be far from poſſeſſing any advantage over it. The acknowledged ſuperiority of twiſted and ribbon barrels over plain ones, has induced ſome perſons to counterfeit them, by colouring plain barrels ſo as to ſhew a ſpiral line running from one end to the other. This is done by winding a thread or ſtring in a ſpiral direction round a plain barrel, and then wetting the ſtring with the diluted aqua fortis, or ſpirit of ſalt, ſo that a coat of ruſt may be formed where the ſtring touches: when the acid is applied the ſecond time over the whole barrel, the part over which the ſtring was applied, by being more ruſted than the reſt, ſhews a dark line winding round the barrel, and renders it, when finiſhed, ſcarcely diſtinguiſhable from a twiſted

or ribbon-barrel. Other barrels are, by the ſame means, clouded in an irregular manner, ſo as to reſemble thoſe formed of ſtub-iron. To prove whether or not a barrel is really what it appears to be, we need only fix upon any part on the under ſide that is covered by the ſtock, and having cleared it, if neceſſary, with a fine file, apply a feather dipped in aqua fortis, which in a little time will render the fibres of the metal diſtinctly viſible, in whatever direction they run.

The *Spaniſh* barrels have always been held in great eſteem, as well on account of the quality of the iron, which is generally conſidered as the beſt in Europe, as becauſe they poſſeſs the reputation of being forged and bored more perfectly than any others. It ſhould be obſerved, however, that of the *Spaniſh* barrels, thoſe only that are made in the capital are accounted truly valuable; in conſequence of which a great many have been made at other places, eſpecially at *Catalonia* in *Biſcay*, with the names and marks of the *Madrid* gunſmiths: they are alſo counterfeited at *Liege*, *Prague*, *Munich*, &c. and a perſon muſt be a very good judge not to be deceived by theſe ſpurious barrels.

Proofs of Barrels.

Theſe differ in different countries. The *Spaniſh* proof is a very ſevere one; but, as it is made before the barrel is filed, it is not ſatisfactory. At the royal manufactories of *St. Etienne* and *Charleville*, in *France*, there were inſpectors appointed to ſee that no barrels were ſent out of theſe places, whether for the king's uſe or for public ſale, without being proved. The firſt proof was made with a ball exactly fitting the caliber, and an ounce of powder. The ſecond was made with the ſame ſized ball and half an ounce of powder. The reaſon given for the ſecond proof is, that the firſt may have ſtrained the barrel ſo much, though the injury be not viſible, that it will not bear a ſecond trial with a ſmaller charge; and it is ſaid there really are ſome of theſe barrels which ſtand the firſt proof, and yet give way in the ſecond.

The uſual proof of the *Paris* barrels is a double charge of powder and ſhot; that is, two or two and a half drams of powder, and two or two and a half ounces of ſhot. The *Engliſh* Tower proof, and that of the *Whitechapel* Company, incorporated by charter for proving of arms, are made with a ball of the caliber, and a charge of powder equal in weight to this ball: the proof is the ſame for every ſize and ſpecies of barrel, and not repeated.

Some gunſmiths pique themſelves upon making their barrels undergo a ſecond proof; but it is proper to obſerve, that if a barrel bears any aſſigned proof, it will ſuſtain the ſame immediately after, with greater ſafety than it did at firſt, as the metal, from being warmed by the firſt fire, expands more readily to the force of the ſecond exploſion.

Mons. de Marolles, ſpeaking of the proofs of barrels, ſays, "A ſtronger proof than ordinary might be made by ramming down at top of the powder ſix or ſeven inches of dry clay, in place of a double charge of lead. This is ſometimes employed in proving pieces of ordnance, where, inſtead of the bullet, two feet of clay is placed over the powder, by which the whole force of the exploſion is exerted upon the piece." We entirely agree with the ingenious author of La Chaſſe au Fuſil, in the opinion that the proof he mentions would be much ſtronger than that which is uſually employed; ſo much ſtronger, indeed, that we do not believe any barrel could withſtand it, unleſs the clay were put down in the looſeſt manner poſſible. The hardeſt rocks are burſt aſunder by means of dry clay ſtrongly rammed over the powder that is placed at the bottom of a cylindrical cavity made in them; and we certainly cannot expect that a force ſufficient to rend in pieces immenſe blocks of granite, can be reſiſted by the comparative trifling ſtrength and thickneſs of a gun-barrel.

Cauſes of Burſting.

It may be ſafely aſſerted, that a good barrel very ſeldom burſts, unleſs it be charged too highly, or in an improper manner. Whenever, for example, from the ball not being rammed home, a ſpace is left between it and the powder, there is a great riſk of the barrel burſting on being diſcharged. We ſay a great riſk, becauſe, even under theſe circumſtances, it frequently happens that the barrel does not burſt. If the ball ſtops near to the powder, a very ſmall windage is ſufficient to prevent this accident; and it is very rare that the ball touches the barrel in every part of its circumference, unleſs it has been driven in by force with an iron ram-rod; in which caſe it moulds itſelf to the cavity, and blocks it up completely. Should this happen, the barrel, however ſtrong it is, will burſt, even when the ſpace between the ball and the powder is but very inconſiderable; and the greater the ſpace that intervenes, the more certainly will this event take place. Mr. Robins, when ſpeaking of this matter, ſays, "A moderate charge of powder, when it has expanded itſelf through the vacant ſpace and reaches the ball, will, by the velocity each part has acquired, accumulate itſelf behind the ball, and will thereby be condenſed prodigiouſly; whence, if the barrel be not of an extraordinary ſtrength in that part, it muſt infallibly burſt. The truth of this I have experienced in a very good Tower muſquet, forged of very tough iron; for, charging it with twelve penny weights of powder, and placing the ball (looſely) ſixteen inches from the breech; on the firing of it, the part of the barrel juſt behind the bullet was ſwelled out to double its diameter, like a blown bladder, and two large pieces of two inches long were blown out of it."

The ſame accident will often take place from the mouth of the piece being filled with earth or ſnow, as ſometimes happens when we are leaping a ditch, with the muzzle of the piece pointed forwards; and if in ſuch caſes the barrel does not burſt, it is becauſe theſe foreign bodies ſtop it up but very looſely. For the ſame reaſon, a barrel will certainly burſt, if fired when the muzzle is thruſt into water but a very little depth below the ſurface; the reſiſtance given to the paſſage of the inflamed powder through the mouth of the piece being

being, in this caſe, much greater than that afforded by the ſides of the barrel. Except in the circumſtances mentioned, or in caſe of an overcharge, it is very rare that a barrel burſts. Whenever it happens independent of theſe, it is from a defect in the work, and that either the barrel has been imperfectly welded, or that a deep flaw has taken place in ſome part of it; or, laſtly, that through want of care in the boring or filing, it is left of unequal thickneſs in its ſides. The laſt defect is the moſt common, eſpecially in low-priced barrels; and, as pieces more frequently burſt from it than from the other defects, it ought to be particularly guarded againſt. The elaſtic fluid, which is ſet looſe by the inflammation of the powder, and which endeavours to expand itſelf equally in every direction, being repelled by the ſtronger parts, acts with additional force againſt the weaker ones, and frequently burſts its way through them; which would not have been the caſe, had the ſides been of the ſame thickneſs and ſtrength, and not afforded an equal repercuſſion. The weakneſs of any part of the barrel, occaſioned by the inequality of the caliber, will ſtill more certainly be the cauſe of burſting than that produced by the filing; becauſe the inflamed fluid, being ſuddenly expanded at the wider part, muſt ſuffer a compreſſion before it can paſs onward, and the whole force is then exerted againſt the weak place; for gunpowder acts in the radii of a circle, and exerts the ſame force on every part of the circumference of the circle.

The concluſion to be drawn from all this is, that a thin and light barrel, which is perfectly upright, that is, of equal thickneſs in every part of its circumference, is much leſs liable to burſt than one which is conſiderably thicker and heavier, but which, from being badly filed or bored, is left of unequal ſtrength in its ſides.

In all that we have hitherto ſaid upon the cauſes of burſting, the bad quality of the iron has not been taken into account; and we do not know any means of guarding againſt theſe defects, whether ariſing from the badneſs of metal, or the inſufficiency of workmanſhip, except by purchaſing from a gunſmith of eſtabliſhed reputation, and giving a good price for the piece. But by this we do not mean to ſanction the practice of many of the gunſmiths in the faſhion of the day; we are confident in our opinion, that moſt of their barrels are made too thin; and it may fairly be doubted, whether they have at all improved the quality of the metal. In ſome experiments made with a barrel of the celebrated Lazaro Cominazzo before mentioned, and which was five feet ten inches in length, and extremely thin, particularly towards the muzzle, it was obſerved, that the barrel vibrated ſo much after the exploſion of this charge, as to produce a whizzing or ringing ſound that might be heard to a conſiderable diſtance from the barrel. And yet this piece, notwithſtanding its extreme thinneſs, was fired with very high charges. The iron appeared to be of an extraordinary fine quality; which goes to prove that the coheſion of the particles of the metal is the force which reſiſts that of the powder; and hence great advantage might be drawn to the manufacture of barrels, from an accurate knowledge of the force of powder, and the velocity of the ball. For, theſe points being once determined, it might be known how ſtrong the barrel ſhould be; by which all unneceſſary waſte of metal might be ſpared on the one hand, and all danger avoided on the other. For a force equal to that which impels the ball is exerted on the inſide of the piece; and if the barrel has not ſufficient ſtrength to reſiſt this force, it muſt of neceſſity burſt.

Of the Recoil.

The moſt frequent cauſe of exceſs in the recoil is, the bore of the piece being wider at one place than another; for although this inequality be ſo ſmall as to be imperceptible to the eye, the repulſe which the expanding flame meets with when paſſing from the wider to the narrower part, renders the recoil much greater than it would have been had the bore been perfectly cylindrical. It is an invariable law in mechanics, that action and reaction are equal; it follows, therefore, that, the weight of the piece being the ſame, the recoil will be in proportion to the weight of the piece; or, the lighter the piece, the greater the recoil.

In plainer language, the impelling force of the gunpowder is the firſt and moſt ſimple cauſe of the firearms recoiling; for this force acts equally on the breech of the piece and on the ball: ſo that, if the piece and ball were of equal weight, and other circumſtances the ſame, the piece would recoil with the ſame velocity as that with which the ball iſſues out of the piece.

For the ſame reaſon, whatever retards the exit of the charge operates like an increaſe of lead, and by confining the force of the exploſion the more to the barrel, produces a greater recoil; hence partly it is, that in proportion as the barrel becomes foul within by repeated firing, the recoil increaſes. A piece will recoil, if, from the breech-plug being made too ſhort, there remain ſome turns of the ſcrew not filled up, theſe hollows, wherein a part of the powder is lodged, forming an obſtacle that confines and retards the exploſion. A barrel mounted on a ſtock that is very ſtraight, will recoil more than when mounted on a ſtock that is conſiderably bent, as the curvature ſeems to break and deaden the force of the recoil; and ſometimes alſo a fowling-piece will recoil from the ſhooter applying it improperly to his ſhoulder; for if the but is not applied cloſely to the ſhoulder, or is applied ſo as to be ſupported only at a ſingle point, the recoil will be much more ſenſibly felt than when the hollow of the but embraces the ſhoulder, and is firmly ſupported by the weight of the body. Guns are obſerved to recoil more after being fired a number of times than they did at the beginning. The matter which is left upon the inſide of the barrel after the exploſion, and which increaſes on every diſcharge, attracts moiſture very quickly; eſpecially if the ſaltpetre employed in the powder was not well purified from the admixtures of common ſalt, which it contains in its rough ſtate. This moiſture becomes conſiderable after a few diſcharges, and, being formed into vapour by the heat during the exploſion, adds its expanſive effort to that of the inflamed powder, and

and greatly increaſes the agitation and recoil. Owing to this cauſe, probably, rather than to that beforementioned, ariſes the recoil from ſome turns of the breech-ſcrew not being filled up by the breech-plug, and thereby affording a lodgment to moiſture.

Among the variety of cauſes to which the exceſſive recoil of pieces has been attributed, there is one which yet remains to be conſidered; this is, the touch-hole's being placed at ſome diſtance from the breech-plug, ſo that the powder, inſtead of being fired at its baſe, is fired near the centre of its charge; whence, it is ſaid, the recoil is increaſed, and the force of the diſcharge weakened, by the effort of the powder being exerted more upon the breech than upon the ball or ſhot. With this idea in view, ſome gunſmiths form a channel or groove in the breech-plug, as deep as the ſecond or third turn of the ſcrew; the touch-hole opens into this channel, and the powder is therefore fired at its very loweſt part; and this, they aſſert, increaſes the inflammation and the force of the powder. That the diſtance of the touch-hole from the breech, however, has very little if any ſhare in the increaſe of the recoil, we ſhall prove in the moſt ſatisfactory manner, from experiments made purpoſely to determine this matter. As to the idea that the force of the diſcharge is diminiſhed by the increaſe of the recoil, it is too abſurd to require diſcuſſion: the force exerted by the powder upon the breech is always equal to that which it exerts upon the ball or ſhot; ſo that, if there be nothing in the barrel that retards the exit of the ball, an increaſe in the recoil will be always attended with an increaſe in the force of the diſcharge.

The following experiments were made by Monſ. Le Clerc, who was gunſmith to the late king of *France*, and well informed upon every ſubject that relates to his profeſſion; they were communicated by him to Monſ. De Marolles.

Theſe experiments were made with a barrel which was thirty *French* inches in length, (nearly thirty-two *Engliſh* meaſure,) and weighed, together with the loaded plank upon which it was fixed, twenty-eight pounds. The barrel had four touch-holes which could be ſtopped with ſcrews. The charge conſiſted of one drachm and twelve grains of powder from a royal manufactory, and of one ounce eighteen grains of ſhot called ſmall 4. This was fired at a ſheet of paper meaſuring twenty inches by ſixteen, *French* meaſure, placed at the diſtance of twenty-eight toiſes, or nearly forty-five ordinary paces. The only difference was, that in the firſt ſet of experiments the wadding conſiſted of card-paper, and in the ſecond of hat, both cut to fit the caliber.

Had theſe trials been made with no other view than to determine the degree of recoil produced by the different ſituation of the touch-hole, there would have been no uſe in marking the ſize of the ſhot, the diſtance and dimenſions of the mark, and the number of grains thrown into it at each diſcharge. It was, however, intended to try, at the ſame time, how far the equality of the diſcharges could be depended upon, with regard to the number of grains that ſtruck a given ſpace; and we ſhall have occaſion hereafter to make remarks upon the reſult of the trials in this reſpect.

N. B. The *French* foot is three quarters of an inch longer than the *Engliſh* foot, and the *French* inch is divided into twelve lines.

We have thought it better to inform the reader of this, and leave the table as it is, than make any fractions in the numbers by reducing it to *Engliſh* meaſure.

First Set.—Wadding of Card-paper.

	Diſcharge.	Recoil. Foot.	Inch.	Lines.		No. of grains thrown into the mark.	Mean.	
Touch-hole	1	1	0	3	Mean	36		
cloſe to the	2	0	10	3	0 11 6½	14	27	
breech-plug.	3	1	0	3		31		
Touch hole	1	1	3	9		45		
two lines from	2	1	2	0	1 3 0	33	34	
the breech-plug.	3	1	3	3		26		
Touch-hole	1	1	0	10		38		
ſix lines	2	0	11	11	1 0 6	20	25	
diſtant.	3	1	0	9		18		
Touch-hole	1	1	1	7		27		
twelve lines	2	1	0	3	1 1 0½	17	26	
diſtant.	3	1	1	4		35		

Mean of all, 28.

Extremes 0. 10. 3. & 1. 3. 3.—Mean recoil 1. 1. 0
Extremes 14 & 45.

Second Set.—Wadding of Hat.

Touch-hole	1	1	1	1		40		
cloſe to the	2	1	4	0	1 2 4½	78	51	
breech-plug.	3	1	2	0		37		
Touch-hole	1	1	0	7		44		
two lines diſ-	2	1	2	3	1 2 0½	40	41	
tant.	3	1	3	3		41		
Touch-hole	1	1	3	3		32		
ſix lines	2	1	2	9	1 3 1	50	45	
diſtant.	3	1	3	2		53		
Touch-hole	1	1	4	5		60		
twelve lines	2	1	2	7	1 3 1½	21	44	
diſtant.	3	1	2	5		51		

Mean, 45.

Extremes 1. 0. 7. & 1. 4. 5.—Mean recoil 1. 2. 8½
Extremes 21 & 78.

From theſe experiments it appears, that, with regard to the recoil, the diſtance of the touch-hole from the breech is of little importance. The only circumſtance, therefore, to be attended to in its ſituation, is, that it be not placed quite cloſe to the breech-plug; for, although that part of the barrel where the powder is lodged, dirties much leſs than a few inches farther forward, yet the touch hole, when cloſe to the breech-plug, is found to be more frequently ſtopped up than when ſituated about a quarter of an inch from it.

Of the Range of Barrels.

The lightneſs of fowling-pieces of a moderate length, and the eaſe with which they are managed, are advan-

tages ſo obvious, and at the ſame time ſo conſiderable, as to give them a general preference at this time; but, as the circumſtances upon which only this preference ought to be reſted are little known, it is not ſufficient that their uſe is general, and daily increaſing, unleſs it be determined what are the comparative excellencies and defects of long and ſhort barrels, and it be thence ſhewn whether ſportſmen ſacrifice one advantage to gain another.

The generally-received opinion upon this ſubject is, that to obtain an increaſe in the range, the barrel muſt not only be made longer than uſual, but that the length and the diameter of the bore ought to bear a certain proportion to each other, and the charge of powder be ſuited to this proportion; becauſe, as it is ſaid, when the barrel is too ſhort, the ball or ſhot quits it before it has received the whole impulſe of the powder; and, on the other hand, when the barrel is too long, that the powder is not only all inflamed, but even partly conſumed, before the ball or ſhot arrives at the mouth of the piece.

The elaſtic fluid produced by the firing of gunpowder is found, by experiment, to occupy, when cooled to the temperature of the atmoſphere, a ſpace two hundred and forty-four times greater than that taken up by the powder from which it was obtained. But from the heat generated during the exploſion, this elaſtic fluid is rarefied to upwards of four times its former bulk. The expanſive force of this fluid, therefore, is, at the moment of inflammation, one thouſand times greater than that of common air, or, which is the ſame, than the preſſure of the atmoſphere; or, ſuppoſing the powder to have occupied the ſpace of one cubic inch, its expanſive force, when fired, is equal to that which would be exerted by one thouſand cubic inches of common air compreſſed into the ſpace of one inch. As the velocity with which the flame of gunpowder expands when uncompreſſed, is much greater than that with which the ball, or ſhot, moves forward, the flame muſt continue to preſs upon the ball, and add to its velocity, until it quits the mouth of the piece. This preſſure, however, becomes leſs and leſs, as the ball proceeds, and ceaſes intirely when it leaves the muzzle, in conſequence of the flame being then allowed to expand itſelf laterally. Thus, for example, if the charge of powder takes up one inch of the barrel, and the whole length of the barrel be thirty inches, then, when the ball arrives at the muzzle of the piece, the inflamed powder (whoſe expanſive effort is in proportion to the ſmallneſs of the ſpace it occupies) extends through thirty times the ſpace it did when the ball began to move, and conſequently preſſes forward with but one-thirtieth part the force it poſſeſſed at firſt. Moreover, although the velocity of the bullet is continually increaſed by this preſſure of inflamed powder, its acceleration becomes leſs and leſs as it proceeds through the barrel; for, beſides that the quantity of the preſſure diminiſhes as the flames expands, the bullet, continuing to move faſter and faſter, muſt receive continually leſs and leſs addition of impulſe from the flame preſſing behind it. Hence, if two pieces of the ſame bore, but of different lengths, are charged with the ſame quantity of powder, the longer piece will, ſtrictly ſpeaking, communicate the greater velocity and force to its ball, or ſhot. But as the inflammation of the powder has been ſhewn to be nearly inſtantaneous, and as the increaſe of acceleration, which the ball or ſhot receives after the firſt impulſe of the powder upon it, is not very conſiderable; it follows that the force with which two barrels of the ſame bore, and with the ſame charge, throw their ball or ſhot, will be nearly the ſame, unleſs their lengths be extremely diſproportionate.

To prove this, we ſhall quote what is ſaid by that able mathematician and engineer, the late Mr. Benjamin Robins, to whoſe work we are indebted for much valuable information. "If a muſquet barrel, of the common length and bore, be fired with a leaden bullet and half its weight of powder, and if the ſame barrel be afterwards ſhortened one-half, and fired with the ſame charge, the velocity of the bullet in this ſhortened barrel will be about one-ſixth leſs than what it was when the barrel was entire; and if, inſtead of ſhortening the barrel, it be increaſed to twice its uſual length (when it will be near eight feet long) the velocity of the bullet will not hereby be augmented more than one-eighth part. And the greater the length of the barrel is in proportion to the diameter of the bullet, and the ſmaller the quantity of powder, the more inconſiderable will theſe alterations of velocity be."

When the allowances which Mr. Robins here takes notice of are made in the proportion required for fowling-pieces, the reſult will be found to correſpond exactly with the experiments which we have repeatedly made, with every poſſible attention to accuracy. We have, at different times, compared barrels of all the intermediate lengths between twenty-eight and forty inches, and of nearly the ſame caliber; and theſe trials were made both by firing the pieces from the ſhoulder, and from a firm block, at an equal diſtance, and with equal weights of the ſame powder and of the ſame ſhot.

To avoid every poſſibility of error, the quires of paper at which we fired, were fixed againſt planks, inſtead of being placed againſt a wall. From theſe trials, frequently repeated, we found that the ſhot piereed an equal number of ſheets, whether it was fired from a barrel of 28, 30, 32, 34, 36, 38, or 40 inches in length. Nay more, we have compared two barrels of the ſame caliber, but one of them thirty-three and the other ſixty-ſix inches long, by repeatedly firing them, in the ſame manner as the others, at different diſtances from forty-five to one hundred paces, and the reſults have always been the ſame, *i. e.* the barrel of thirty-three inches drove its ſhot through as many ſheets of paper as that of ſixty-ſix did. The concluſion from all this is, that the difference of ten inches in the length of the barrel, which ſeems to be more than is ever inſiſted upon among ſportſmen, produces no ſenſible difference in the range of the piece; and therefore, that every one may pleaſe himſelf in the length of his barrel, without either detriment or advantage to the range.

The circumſtance of a duck-gun killing at a greater diſtance

diſtance than a fowling-piece, is not owing to its length, but to its greater weight and thickneſs, allowing the charge of powder to be doubled, trebled, or even quadrupled; which cannot be done in a fowling-piece, though ſtrongly reinforced. For a barrel of five or ſix feet, ſuch as that of a common duck-gun, weighing five or ſix pounds, and the whole piece twelve or thirteen pounds, may be fired with a very large charge, without recoiling ſo much as to hurt the ſhooter, its weight being ſufficient to reſiſt the violent impulſe occaſioned by the increaſe of the powder. But in a fowling-piece of three feet barrel, ſufficiently ſtrong to withſtand ſuch a charge, and whoſe weight all together does not exceed five or ſix pounds, the recoil would be inſupportable. Beſides, they not only double or treble the powder in a thick gun, but they put in a much greater quantity of ſhot than is ever employed in a fowling-piece. Duck-guns are generally bent a little upwards near the muzzle, which, the gunſmiths ſay, makes them throw their ſhot farther than if they were perfectly ſtraight. To obtain, therefore, from a piece of the ordinary length, the ſame effects as from a duck-gun, nothing more, perhaps, is neceſſary than to have the barrel ſufficiently ſtrong to admit of the charge being doubled or trebled as required, and the whole piece heavy enough to render the recoil ſupportable. We may here obſerve, however, that an increaſe of the powder above the charge generally uſed, does not produce a proportional increaſe of range in the ball or ſhot: thus a double charge of powder will not throw the ball or ſhot twice the diſtance, nor a treble charge to three times the diſtance the ſingle charge does. This ariſes from the great reſiſtance given by the air to the motion of the ball or ſhot, and which is proved to be fourfold if the velocity be doubled, and ninefold when it is trebled by an increaſe of powder; for the reſiſtance of the air is not proportional to the velocity itſelf, but only to the ſquare of the velocity. Thus Bernoulli, a profeſſor in *Baſil*, diſcovered from experiment that a ball, which, being fired, aſcended only ſeven thouſand eight hundred and nineteen feet in the air, would aſcend fifty-eight thouſand ſeven hundred and fifty feet in vacuo. Still we may ſafely infer, that, if the action of the powder is not diminiſhed by circumſtances of defect in the formation of the barrel, the greater the force of the powder, the greater muſt be the velocity of the ball. So great is the change in opinion of late, with regard to the proper length for gun-barrels, that many gunſmiths will now tell us, that ſhort barrels carry farther than long ones; and the reaſon they give for this, is, the greater friction of the ball or ſhot in paſſing through a long barrel, by which their velocity is retarded and their force diminiſhed. If the barrel be ſo long that the additional impulſe which the ball or ſhot is continually receiving in its paſſage becomes leſs than the friction between them and the ſides of the caliber, then, indeed, the barrel by being ſhortened will ſhoot with more force: but, as the length of barrel required to produce this effect is vaſtly greater than can ever be employed for any purpoſe, the objection does not hold. And it ſeems clear, that a piece may be made ſo long, that it will not throw a ball with ſo great a velocity as one that is conſiderably ſhorter; and the reaſon of this decreaſe of velocity may be, that in very long pieces the increaſe of the counterpreſſure of the external air in the cylinder may greatly exceed the force of the powder, and that the elaſtic fluid generated by the exploſion of the powder is conſtantly eſcaping whilſt the ball paſſes along the cylinder, which it not only does at the touch-hole, but alſo between the ball and the ſides of the barrel; and hence may be inferred the neceſſity of touch-holes which do not prime of themſelves, and of wadding that ſtops the barrel hermetically.

Having thrown every light upon this queſtion that is neceſſary to determine us in our choice of the length, it will, perhaps, be expected that we give our opinion, what length of barrel is beſt calculated for general uſe. The barrels which are found to anſwer beſt for every purpoſe, are from thirty-two to thirty-eight inches; and whether we conſult the appearance of the piece, its lightneſs, or the eaſe with which it is managed, we believe that a barrel not exceeding the one, or below the other, of theſe numbers, is the moſt eligible. We know that many of the faſhionable gunſmiths pique themſelves on the proportion they give to the different parts of their fowling-pieces, and thence deduce a ſuperiority over their cotemporaries in favour of their own: to us it appears that the beauty of thoſe proportions is more attended to, than any good reaſon why they are made ſo rather than otherwiſe.

Of the Cauſes of Scattering Shot.

From the prejudices which obtain ſo generally among ſportſmen and gunſmiths, reſpecting the ſhot of fowling-pieces, it is very natural to ſuppoſe, that a variety of means have been ſought after and practiſed, in order to remedy this real or pretended effect of ſcattering the charge. Mr. de Marolles mentions ſeveral methods employed for this purpoſe, none of which, however, appear to be practiſed in *England*. One of the methods he deſcribes is as follows: An iron or wooden mandril, fitted to the caliber, is furniſhed at one end with ſmall files, which are cut tranſverſely only; this inſtrument being introduced into the barrel is turned round by means of a croſs-handle, and forms a great number of ſuperficial ſcratches in the metal, by which, they pretend, the defect of ſcattering the ſhot is remedied. One obvious effect of this operation, is, that of deſtroying the ſmoothneſs of the barrel within, and thereby rendering it liable to dirty the ſooner; but we cannot conceive how the ſhot ſhould be thrown cloſer by having the friction increaſed between it and the ſides of the caliber; and that this will be the caſe, is evident from a rough barrel being always found leaded conſiderably after every diſcharge. Some make the barrel wider for three or four inches at the muzzle; and this bell-mouthed form is of very ancient date.

Espinar, whoſe treatiſe has been already mentioned, ſays, he has generally found this ſucceed in making barrels throw their ſhot cloſer. Were this true, we ſhould expect to find this form of the barrel more generally uſed than it is at preſent, and not

hear ſo many complaints among ſportſmen about their pieces.

When we conſider that the grains of ſhot which are in actual contact with the ſides of the barrel compoſe upwards of half the charge, we cannot be ſurpriſed if enlarging the ſurface of the caliber at the muzzle, and thereby increaſing the number of grains that touch it, will tend to make the ſhot be ſcattered more widely. Espinar ſays, that the fault of ſcattering the ſhot is not owing to the hand of the workman, the barrels of the beſt maſters being equally ſubject to it as thoſe of others. He is of opinion, that it ariſes from the different quality of the iron compoſing the ſeveral portions of the barrel. Thus, he ſays, it may happen that the reinforced part is formed of iron which is harder, and cloſer in the grain, than that forming the fore part of the barrel; in conſequence of which, and alſo from the fore part being ſo much thinner, the latter is the more ſhaken by the powder, and by that means produces a diſperſion of the ſhot. He therefore pretends, that widening the muzzle in the manner already ſpoken of, by facilitating the exploſion, diminiſhes the force of the powder upon this part, and cauſes the ſhot to be thrown more cloſely together.

This opinion of Espinar, however, not only appears abſurd in itſelf, but there is not even the ſmalleſt ground for it in the greater number of inſtances; the barrels which are forged in ſeparate pieces being very few indeed, compared with thoſe that are forged in a ſingle piece, and are conſequently of the ſame quality throughout: nor does it appear that the former are more liable to the fault in queſtion than the latter are.

Some gunſmiths, ſays Mons. de Marolles, pretend, that a barrel, in order to throw its ſhot cloſely, ought to have a caliber narrower in the middle than at either breech or muzzle; whilſt others, again, inſiſt that the caliber ought to contract gradually from the breech to the muzzle. With reſpect to theſe contrivances, however, we ſhall only obſerve, that they are both admirably calculated to make the piece recoil, if not to burſt it.

Of all theſe contrivances, not one appears calculated to anſwer the end for which it was propoſed. The greater number of gunſmiths are ſenſible of this, and therefore very ſeldom practiſe them, unleſs to indulge the whim of their cuſtomers. As far as our reaſon and experience are ſufficient for enabling us to determine upon the matter, we would reject all the expedients that have been hitherto propoſed, and give a decided preference to the barrels as they are uſually made, *i. e.* to thoſe whoſe caliber is very ſmooth and perfectly cylindrical throughout. Barrels of this kind have long ſupported their credit among the beſt ſportſmen, whilſt the pretended improvements have all experienced but a very temporary reputation, and are now almoſt entirely neglected. Would ſportſmen only forbear to determine upon the merits or defects of their pieces, until they had given them a patient and impartial trial, by varying the quantity of powder and ſhot in different ways; we are inclined to think there would be fewer complaints made of the modern fowling-pieces. The chief ſource of error appears to be, that of overcharging. Every barrel, according to its caliber and weight, has a certain quantity of lead, and a ſuitable one of powder, which will be attended with greater certainty and effect than any others; and theſe muſt be determined by repeated trials. If we increaſe the quantity of ſhot above this, we leſſen the force of diſcharge, and at the ſame time increaſe the recoil: and, if we increaſe the charge of powder, that of the ſhot remaining the ſame, we alſo increaſe the recoil, and diſperſe the ſhot much more than before. In every ſpecies of fire-arms, large charges of powder are found to diſperſe the ſhot very much, whilſt with ſmaller charges than are generally employed it is thrown more ſteadily and cloſely. If the object, therefore, which we are about to fire at, be at too great a diſtance for the ſhot to take effect, and it happens that we cannot approach nearer to it, we ought not to increaſe the quantity of powder with a view to the ſhot being thereby thrown farther, as, by ſo doing, the increaſe of the range will be very trifling, whilſt the diſperſion of the ſhot will be greatly increaſed. The only expedient in this caſe, is, to employ ſhot of a larger ſize, the quantity of it, and of the powder, being kept the ſame as has been already found beſt ſuited to the piece.

We cannot venture to determine what degree of cloſeneſs or diſperſion in the ſhot will entitle any piece to the name of a good or a bad one; but would obſerve, that if a fowling-piece, charged with an ounce of No. 2, patent-ſhot, and a drachm of powder, throws ſixty grains into a ſheet of paper eighteen inches by twenty-four, at the diſtance of fifty paces, we may conſider it as very capital, although theſe are only about one-third of the charge; and that the ſame piece, continuing to be fired at the ſame mark and diſtance, will not, in the mean of four or five ſucceſſive diſcharges, throw thirty-ſix grains into the paper; in ſhort, that, when due attention is paid to finding the ſuitable quantity of powder and of ſhot, one piece will perform nearly as well as another.

Of Rifle Barrels.

It has been found that the flight of balls, both from cannon and ſmall arms, is liable to very conſiderable variations; and that the piece, notwithſtanding it was firmly fixed, and fired with the ſame weight of powder, ſometimes threw the ball to the right, ſometimes to the left, ſometimes above, and at other times below the mark. It has alſo been obſerved, that the degree of deflexion increaſes in much greater proportion than the diſtance of the object fired at: thus, at double the diſtance, the deflexion of the ball from the line on which the piece is pointed is conſiderably more than double, and at treble the diſtance more than treble, what it was in the firſt. Mr. Robins ſecured a muſquet barrel upon a block of wood, and firing it with a ball, at a board of a foot ſquare, ſixty yards diſtant, found that it miſſed the board only once in ſixteen ſucceſſive diſcharges; yet, when fired with a ſmaller charge, at the diſtance of ſeven hundred and ſixty yards, it ſometimes threw the ball one hundred yards to the right, and at other times

times one hundred to the left of the line it was pointed in. The direction upwards and downwards alſo was found equally uncertain, the ball ſometimes bending ſo much downwards as to fall two hundred yards ſhort of its range at other times. Yet the niceſt examination could not diſcover that the barrel had ſtarted in the leaſt from the poſition in which it was firſt fixed.

It is impoſſible to fit a ball ſo accurately to any plain piece, but that it will rub more againſt one ſide of the barrel than another, in its paſſage through it. Whatever ſide, therefore, it rubs againſt on its quitting the muzzle, it will acquire a whirling motion towards that ſide, and will be found to bend the line of its flight in the ſame direction, whether it be to the right or the left, upwards, downwards, or obliquely. This deflection from a ſtraight line, ariſes from the reſiſtance which the air gives to the flight of the bullet, it being greateſt on that ſide where the whirling motion conſpires with the progreſſive one, and leaſt on that ſide where it is oppoſed to it: thus, if the ball, in its paſſage out, rubs againſt the left ſide of the barrel, it will whirl towards that ſide; and, as the right ſide of the ball will therefore turn up againſt the air during its flight, the reſiſtance of the air will become greateſt on the right ſide, and the ball be forced away to the left, which was the direction it whirled in. If the axis round which the ball whirls, preſerved its poſition during the whole of the flight, the deflection would be in the ſame direction from the one end of the track to the other. But, from accidents that are unavoidable, the axis of the whirl frequently changes its poſition ſeveral times during the flight; ſo that the ball, inſtead of bending its courſe uniformly in the ſame direction, often deſcribes a track that is variouſly contorted. So great, however, is the tendency of the ball to deflect itſelf towards the ſide it rubs againſt, that although, when fired out of a barrel that is bent towards the left hand, it will be thrown from the piece in the direction of the bend, yet as the ball in this caſe will be forced to rub againſt the right ſide of the muzzle, and thus turn its left ſide up againſt the air; ſo it will be found to alter its courſe during the flight, and bend away towards the right hand, ſo as to fall a conſiderable way to the right of the line in which the piece was pointed.

From what has been ſaid, it will readily appear, that theſe variations will be more frequent and conſiderable when the ball runs very looſe in the piece; or when, from any roughneſs on its ſurface, or on the inſide of the barrel, a conſiderable degree of friction takes place between them. With a view to prevent friction, it has been propoſed to greaſe the ball; but this will be of little ſervice. All that can be done in a plain barrel, is, to have the balls caſt very ſolid and true, and afterwards milled in the ſame manner as is now practiſed upon ſhot: the barrel alſo ſhould be very ſmooth on the inſide, and the ball fit it very accurately, ſo as to leave ſcarcely any windage. And yet, with the help of all theſe, it will ſtill be very difficult to prevent it altogether; for gravity will conſtantly act, and friction on the under ſide will naturally be occaſioned by the weight of the ball.

From conſidering the cauſes of this aberration in the flight of bullets, it will be pretty evident, that the only means of correcting it is by preventing the ball from rubbing more againſt one ſide of the barrel than another in paſſing through it; and by giving to the bullet a motion, which will counteract every accidental one, and preſerve its direction by making the reſiſtance of the air upon its fore part continue the ſame in every part of the flight. The contrivance for this purpoſe is termed rifling, and conſiſts in forming upon the inſide of barrels, a number of furrows either in a ſtraight or ſpiral direction; into theſe the ball is moulded, and any rolling motion along the ſides of the barrel, in its paſſage out, thereby prevented. Barrels of this conſtruction have been in uſe upon the continent ſince the middle of the ſixteenth century, but were little known, and ſtill leſs employed in *England*, until within theſe fifty years. The ſpiral rifled barrels, however, have entirely ſuperſeded the ſtraight rifled ones, becauſe, although the latter prevented the rolling motion of the ball that takes place in a plain barrel, yet they do not communicate any other motion, that could ſerve to correct the variations that may occur during the flight.

The furrows, or channels, which are termed the rifles, vary in number according to the fancy of the workman, or that of the purchaſer, but are never leſs than ſix, or more than twelve, in a common-ſized piece. Their depth is equally ſubject to variation; but the breadth of the furrows and of the threads is generally the ſame. In ſome pieces, the ſpirals make a half turn, in others three-fourths, and in others, again, an entire revolution in the length of the barrel: an intire revolution, however, is the moſt common; though from the great difference in the length of rifle barrels, there ſhould be ſome ſtandard aſſigned for the obliquity of the ſpiral. There is, without doubt, a certain obliquity of the ſpirals which would communicate a rotary motion to the ball, ſufficient to correct any aberration in its flight; and this might be determined by comparing the effects of a number of pieces, that differed only in the obliquity of the rifles. Barrels intended to be rifled are previouſly bored and ſmoothed within, in the manner already deſcribed: they are, however, forged as much thicker than plain barrels as the depth of the rifles; for, although the threads of the ſpiral add to the weight of the barrel, they do not increaſe its ſtrength in the leaſt, with regard to the force exerted upon it by the powder.

Theſe pieces are charged in various ways. In general, the ball, which is ſomewhat larger than the caliber before it was rifled, is driven down to the powder, by means of an iron rammer, ſtruck with a mallet, whereby that zone of the ball which is in contact with the ſides of the barrel, becomes indented all round, and is moulded to the form of the rifles. When the piece is fired, the projections of the ball which fill the rifles, being obliged to follow the ſweep of the ſpiral, the ball thereby acquires a rotary motion upon an axis that correſponds

reſponds with the line of its direction; ſo that the ſide of the bullet which lay foremoſt in the barrel, continues foremoſt during the whole of the flight. By this means the reſiſtance of the air is oppoſed directly to the bullet's progreſs, and not exerted more againſt one part than another of that ſide which moves foremoſt; and accordingly the bullet preſerves the line of its direction with very great ſteadineſs.

It appears that neither the inventors of ſpiral rifle barrels, nor the perſons who firſt uſed them, were at all acquainted with the principles upon which they produced their effects. Some were of opinion, that, owing to the ball not paſſing out ſo quickly as out of a plain barrel, the powder was more completely inflamed, and thereby exerted a greater force upon it. Others, and theſe by far the greater number, thought that the ball, by combining the rotary with the progreſſive motion, did, as it were, bore the air; thereby flying much farther, and penetrating ſolid bodies to a greater depth, than when diſcharged from a plain barrel. But ROBINS aſſerts, that as the bullet meets with a greater reſiſtance in its paſſage through a rifled barrel than through a plain one; ſo neither its velocity, nor the diſtance to which it is thrown, is ſo great when fired from the former as when fired from the latter: and this difference will be very remarkable if the rifles be deep, and the ball fills them up completely; the friction, in that caſe, bearing a conſiderable proportion to the force of the powder. For the ſame reaſon, he ſays that barrels which are newly rifled, and, conſequently, ſomewhat rough within, do not throw their balls ſo far as they will be found to do after being uſed for ſome time, and thereby rendered ſmoother; and, that the miſtake of thoſe who ſuppoſed that rifle barrels threw their balls to a greater diſtance than plain barrels did, aroſe from their finding, that, with the former, they could hit a mark at three or four times the diſtance they could do with a plain barrel.

Beſides the method of loading a rifle-barrel gun, by driving down the ball with an iron rammer, there are ſeveral others which we ſhall mention. In *Germany* they ſometimes charge them in the following manner: a piece of thin leather or fuſtian is cut into a circular ſhape, and ſo large as to cover a little more than half of the ball; this piece is then greaſed on one ſide, and, being placed over the muzzle, the ball is laid upon it, and both thruſt down together; by this means the leather or fuſtian enters into the rifles, and the bullet, being firmly embraced by it, acquires the proper rotary motion in its paſſage through the barrel. If this method be equally effectual, it is certainly much more eaſy and expeditious than that already deſcribed. Some of the old pieces of this conſtruction were charged by taking out the breech every time; and, we are informed, that the pieces uſed by the *Heſſian* yagers, are charged the ſame as the common ſcrew-barrel piſtols. By far the moſt expeditious way of charging rifled pieces, however, is, by means of an ingenious contrivance which now generally goes under the name of FERGUSON'S rifle-barrel, from its having been uſed by MAJOR FERGUSON'S corps of rifle-men during the laſt *American* war. In theſe pieces, there is an opening on the upper part of the barrel, and cloſe to the breech, which is large enough to admit the ball. This opening is filled by a riſing ſcrew which paſſes up from the lower ſide of the barrel, and has its threads cut with ſo little obliquity, that, when ſcrewed up cloſe, a half-turn ſinks the top of it down to a level with the lower ſide of the caliber. For, when the ball is forced through the rifles by the effort of the powder, the friction muſt be conſiderably more than when it is moulded to them in the ramming down. It appears, however, that in whatever way the piece is charged, this friction might be much diminiſhed, by making the channels or furrows very broad in proportion to the breadth of the threads, and, inſtead of leaving the latter flat on the top, to have them terminating in a ſharp edge, whereby they would cut eaſily into the ball. This would alſo ſerve to leſſen the additional quantity of metal in the barrel, which, as the rifles are now formed, bears a very conſiderable proportion to the weight of the whole piece. The depth of the rifles, likewiſe, need not be great, as a very ſlight hold of the ball is ſufficient to communicate the deſired motion: deep rifles are particularly detrimental when the piece is charged at the breech; for, if the ball be large enough to fill them up intirely, the reſiſtance, and, conſequently, the recoil, will be very great; and, if it does not fill the rifles, there will be ſo much windage, that a conſiderable portion of the flame will eſcape paſt it, and the force of the diſcharge be thereby greatly leſſened.

To render rifle-barrels as complete as poſſible, we ſhould endeavour, by every means in our power, to diminiſh the friction between the bullet and the ſides of the barrel. We have already mentioned ſome alterations which we think would conduce to this. The turns of the ſpiral being exactly parallel to each other, and both the threads and the furrows being made perfectly ſmooth, are circumſtances abſolutely eſſential to perfection; as thereby the bullet, when once put in motion, will paſs through the barrel with very little friction. The moſt accurate method of aſcertaining this, is, by pouring melted lead into the barrel ſo as to form a cylinder of two or three inches in length, and which is exactly fitted to one portion of the caliber: if this cylinder, when moved a little, paſſes without ſtop or difficulty from one end of the barrel to the other, by being puſhed gently, the rifling may be pronounced very exact. The ſame thing may be tried with a plug or ball of lead, driven into one end of the barrel ſo as to fill the rifles, and puſhed forward with the ram-rod.

From the imperfect manner in which any inſtrument works in a ſpiral direction within the barrel, the furrows are generally left very rough; and hence rifled pieces are found to throw their ball to a greater diſtance, though with equal accuracy, after being uſed for ſome time, and thereby having the bottom of the furrows, and edges of the threads, worn ſmooth. Theſe might be rendered ſmooth at firſt, by means of a plug of lead or pewter, made to fit the rifles, being fixed to an iron rod, and wrought backwards and forwards in the barrel with fine emery and oil: or the leaden plug might be employed as a pattern to form one of braſs or ſteel by, for the ſame purpoſe.

As the pieces which are charged at the breech are conſiderably dearer than the others, and, excepting the expedition with which they can be charged, are really inferior to thoſe charged at the muzzle; we are of opinion, that the latter might, by a very ſimple means, be rendered equally ſerviceable with the former. This is nothing more than having the balls caſt with projections that anſwer to the rifles; which may be done with great eaſe and accuracy by making correſponding hollows round a zone of the bullet-mould: by this the ball may be fitted ſo accurately to the rifles, as to leave ſcarcely any windage; whilſt the friction will be leſs than it is either when the ball is put in at the breech, or forced in by the muzzle.

In treating of the cauſes of aberration in the flight of balls, we have ſuppoſed the air to be perfectly ſtill; it being evident, that the force of the wind will affect balls conſiderably, whether they are fired from a plain, or from a rifled barrel; but, for the reaſons already given, will affect the former in a much greater degree than the latter.

Pieces intended for ſhooting with ball, whether they be plain or rifled, ought to be of much more equal thickneſs, from the breech to the muzzle, than thoſe that are intended for ſhot only. In every barrel, there is an undulating vibration communicated to the metal by the explofion. This is moſt remarkable in a thin barrel, and when the charge is great; and may be rendered very evident by the following eaſy experiment: Take a piece of fine ſteel or iron-wire, that is tempered ſo as not to ſtretch readily; paſs it once round the thin part of the barrel, and twiſt it tight. The piece being then charged and fired, the wire will be found burſt aſunder, or conſiderably untwiſted. It is evident, that ſuch a degree of vibration in the barrel muſt have an effect upon the ball in its paſſage through it; and that the only means of preventing it, is, by having an additional quantity of metal in the barrel, and eſpecially in the fore part of it. The ſame circumſtance certainly obtains, though in a much leſs degree, in fowling-pieces; and, on this account, as well as on that of the recoil, a barrel which is ſtrong enough to withſtand any charge that is required, may yet have too ſmall a quantity of metal in it.

Having now fully explained the principles upon which rifle-barrels produce their effects, our readers will be prepared to conſider how far the ſtraight rifling can be uſeful when employed for ſhot. Theſe pieces are ſaid to be very common in *Germany*, and are uſed by a few perſons in this country; though we underſtand that the greater number even of theſe few are now leſs partial to them than they were at firſt. If the divergency of ſhot ariſes from the ſame cauſe as that of ball, viz. from acquiring a whirling motion to one ſide or other by rubbing againſt the ſides of the piece, it is evident that rifling the barrel can have no tendency to prevent this. For let it be granted, that the channels or flutings within are ſemicircular, and that the ſhot is exactly adapted to theſe (two circumſtances ſaid to be neceſſary to the perfection of theſe pieces) it cannot be imagined that grains will acquire leſs of the rolling motion in paſſing along theſe flutings, than in paſſing along the ſides of a plain barrel; on the contrary, it will neceſſarily be greater, as the points of contact are conſiderably more numerous.

SHORT-JOINTED; a horſe is ſaid to be ſhort-jointed that has a ſhort paſtern.

When the joint or the paſtern is too ſhort, the horſe is ſubject to have his fore-legs from the knee to the coronet in a ſtraight line.

Commonly your ſhort-jointed horſes do not manage ſo well as the long-jointed; but out of the manage, the ſhort-jointed are the beſt for travel or fatigue.

SHOT-MAKING; ſhot for fowling ſhould be well ſized, and of a moderate bigneſs, for ſhould it be too great, then it flies thin and ſcatters too much, or if too ſmall, then it hath not weight and ſtrength to penetrate far, and the bird is apt to fly away with it: in order therefore to make it ſuitable to the occaſion, it not being always to be had in all places, fit for your purpoſe, I have therefore ſet down the true method of making all ſorts and ſizes under the name of mould-ſhot. Its principal good properties are to be round and ſolid.

SHOULDER OF A HORSE, is the joint in the fore quarters that joins the end of the ſhoulder-blade with the extremity of the fore-thigh; alſo that part of his forehand that lies between the withers, the fore-thigh, the counter and the ribs.

SHOULDER OF A BRANCH, is that part of it which begins at the lower part of the arch of the banquet, over-againſt the middle of the fonceau, or chaperon, and forms another arch under the banquet.

The ſhoulder of the branch caſts a greater or leſſer circumference, according as it is deſigned to fortify or weaken the branch.

SHOULDER-PEGGED HORSES, are ſo called when they are gourdy, ſtiff, and almoſt without motion.

A horſe charged with ſhoulders, is a horſe that has thick, fleſhy, and heavy ſhoulders.

SHOULDER-SPLAIT, a horſe is ſaid to be ſuch when he has given his ſhoulders ſuch a violent ſhock, as to disjoint the ſhoulder-bone from the body.

SHOULDERS OF A HORSE, ſhould be ſharp and narrow at the withers, of a middle ſize, flat, and but little fleſh upon them; for if he be charged with ſhoulders, he will not only be heavy on the hand, and ſoon weary, but trip and ſtumble every minute, eſpecially if with ſuch ſhoulders his neck be thick and large.

Some ſaddle horſes, on the contrary, are too ſmall in the ſhoulders; that is, when their breaſts are ſo narrow that their fore-thighs do almoſt touch: ſuch horſes are of little value, becauſe they have a weak fore-hand, and are apt to cut by croſſing their legs, and carry them ſo confuſedly in galloping that they are ſubject to fall.

The ſhoulders of a well ſhaped horſe are compared to thoſe of a hare, and the diſtance between them ſhould be little more than half the breadth of his hind-quarters.

SHOULDER-PIGHT IN A HORSE, is a malady, being the diſplacing of the point of the ſhoulder by ſome great fall, rack, or pain, which may be known by one

ſhoulder-

ſhoulder-point's ſticking out farther than its fellow, and alſo he will halt downright.

As for the cure, ſwim the horſe up and down in deep water a dozen times, which will cauſe the joint to go back into its right place again.

Then take two pins of aſh-wood, about the bigneſs of a finger, about five inches long, and ſharp-pointed; ſlit the ſkin an inch above and beneath the point of the ſhoulder, and from above thruſt one of theſe pins downwards, ſo that both the ends may equally ſtick within the ſkin: but if the wooden pin will not paſs through eaſily, you may firſt make way for it with an iron pin.

When you have done this, make two other holes croſs to the firſt, ſo that the other pin may croſs the firſt right in the midſt, with a right croſs, and the firſt pin ſhould be ſomewhat flat in the midſt, to the end that the other being round, may preſs the better without ſtop, and cloſe more exactly together.

Then take a piece of a line, a little bigger than a whip-cord, and make a loop at one end, which being put over one of the ends of one of the pins, ſo that it may lie between the pin's end and the ſkin; faſten this laſt end with your packthread to the reſt of the cord, ſo that it may not ſlip: both the pins and the cord ſhould be firſt anointed with hog's greaſe.

Then bring the horſe into the ſtable, and let him reſt for nine or ten days, but let him lie down as little as may be: put a paſtern ſhoe on the fore-leg, and after nine or ten days anoint the ſore place with a little dialthæa, or hog's greaſe, ſo turn him out to graſs, and let him run there till the pins are rotted off; if he be worked in a cart after the end of a month, it will ſettle his ſhoulder the better, and make him the fitter for riding. *See* STRAINS.

SHOULDER-PINCHING, a misfortune that befals a horſe by labouring or ſtraining when too young, or by being over-loaded.

This malady may be known by the narrowneſs of his breaſt, and by the conſumption of the fleſh of the ſhoulders, inſomuch that the fore-part of the ſhoulder-bone will ſtick out and be higher than the fleſh; and if it be of a very long ſtanding, the horſe will be very hollow upon the briſket, towards the arm-holes, and go wider beneath the feet than above the knee.

For the cure: give him a ſlit with a ſharp knife an inch long, upon both ſides, an inch under the ſhoulder-bone; when it is done with a large quill put into the ſlit, blow up firſt one ſhoulder and then another, as big as poſſibly you can, and even up to the withers, and with your hands ſtrike the wind equally into every part of the ſhoulders, and when they are both full, beat all the wind places with an hazle wand, over all the ſhoulder; after that, with a flat iron ſlice looſen the ſkin within from the fleſh.

Then rowel the two ſlits or cuts with two round rowels made of the upper leather of an old ſhoe, with an hole in the midſt, that the corruption may run out; let the rowels be three inches broad, and put in flat and plain within the cut; this may be as large as you think fit to lay the ſame open.

SHOULDER-SPLAITING, } a malady that may
SHOULDER-TORN, } befal a horſe by ſome dangerous ſliding, either at home or abroad, by which the ſhoulder is parted from the breaſt, and ſo leaves an open rift, not in the ſkin but in the fleſh, and the film next under the ſkin, which renders the horſe ſo lame that he is not able to go; and it may be known by his trailing his legs after him in going.

For the cure: put a pair of ſtraight paſterns on his feet, and keep him in the ſtable without diſturbing him. Then take a pint of ſalad-oil, one pound of dialthæa, half a pound of oil of bays, and as much freſh butter, which melt all together in a pipkin; and with this anoint the part, and alſo round about the ſide of the ſhoulder; this will cauſe both the ſaid places and all the ſhoulder to ſwell in two or three days time; then prick all the ſwollen parts with a hamet, or fleam, or a ſharp hot iron, and anoint the parts with the before-mentioned ointment.

But if it ſtill continues to ſwell and gather to a head, you muſt lance it where the ſwelling gathers moſt, and feels ſofteſt under your finger, and tent it with green ointment.

SHOULDER-WRENCH, a misfortune that befals horſes ſeveral ways, ſometimes by turning and ſtopping too ſuddenly upon ſome uneven ground, ſometimes by running too haſtily out at ſome door; at other times by ſlipping or ſliding either in the ſtable or abroad, and by ſeveral others.

The beſt receipt for the cure of it, is to take up the horſe's ſound leg before, to double it backwards in the joint, and ſo tie it with a liſt, or ſome ſoft thing, ſo faſt that it will not untie, and then to force him to go upon his three other legs till he ſweats at the roots of his ears, flanks, and between his legs; then untie his leg and let it down, and this will cauſe the blood to deſcend into the plate-vein, that it will be more viſibly ſeen when it is tied up; but if it does not appear ſo plain as you would have it, wet it with warm water with your hands, and ſtroke it downwards towards the place where you are to let him blood, and this will cauſe it to appear more viſibly.

Then tie up his leg again, and bleed him in the common bleeding-place, between his cheſt and lame leg, taking away two quarts or more, according as the ſtrain is great or ſmall: ſave a quart of the blood, and put a handful of ſalt in it, ſtirring it while it is running, that it may not clot; and when he has done bleeding, and you have pinned up the mouth of the plate-vein with a leaden pin or needle, to prevent it from bleeding, and bound ſome hairs of the mane or tail about the pin, to keep it faſt and ſteady, till a day or two after that you take it out, ſmear him with the blood; but before you pin him up, anoint him all over the ſhoulder and breaſt, between his legs, and down to his knee, with oil of turpentine and ſtrong beer or ale, in equal parts, ſhook and mingled together very well in a glaſs vial, clapping and dabbing it well with your hand; then ſmear all the ſaid places anointed, with the blood and ſalt, chafing and dabbing this alſo very well with your hand; then ſet him up to his meat, and with a liſt, or garter,

tie

tie both his legs together as close as you can; then the next day untie him and walk him out, and if you find that he goes pretty well, ride him gently about a mile, and then set him up again, tying his fore-feet together as before.

But if he does not go well the first day, do not ride him, but only walk him the second; and the third day, after his dressing, do not only tie his legs, but flat a stick on both sides, like a wedge, about the bigness of a six-pence, drive this between the toe of his shoe and the toe of his foot, fast, so that it may not come out; and always while he stands still in the stable, tie his legs close, and peg him with the wedge; and when you take him out to walk or ride, untie his legs and take out the wedge.

Do this every night and morning until he is cured, which will be in a few days if the hurt has been newly received.

The Sieur de SOLEYSEL, and others, prescribe the following medicine for these maladies:

Take half a pound of new wax, the same quantity of rosin, pitch, and common turpentine; a pound of oil of olives, two pound and a half of capon's grease, the same quantity of badger's, horse's, and mule's, and of the marrow of a stag: oil of turpentine two ounces; castor, worms, chamomile, St. *John's* wort, linseed, and of foxes, two ounces: set the olive oil in a bason over a clear fire, with the wax, rosin, and pitch pounded together, stirring them over the flame till they are dissolved; then add the fats and stag's marrow, and then the turpentine, and let the whole incorporate over a gentle fire.

Then pour in the oils, and keep stirring them for half a quarter of an hour; then take it off the fire, continuing to stir it till it is cold.

When you apply this ointment, rub the affected part with a wisp of straw, and having warmed your hand, chafe in the ointment as hot as the horse and your hand is able to bear it, holding a hot fireshovel near the part to cause it to penetrate: repeat this once in two days.

SHRAPE, } a place baited with chaff or corn, to
SCRAPE, } entice birds.

To SHRIEK, } (with Foresters) to cry or make a
To SHRIKE, } noise, as a badger does at rutting-time.

SIGNS OF SICKNESS IN HORSES. The first signs of a horse's indisposition, is his loathing his food; then it must be observed, whether he hath a wild and haggard look, for the eye of an horse is, as it were, a glass, through which you may discern the inward disposition of his body; observe likewise, whether his ears be cold, his mouth hot and foaming, or clammy, the hair of his flanks rough and staring, and paler than usual about the ends; his dung hard or black, or greenish, and his urine clear and undigested like water.

In this case his eyes are subject to weep, his head heavy and hanging down; he is apt to stumble as he walks; he is slow and dull, though he was vigorous before; he never minds other horses; contrary to his former custom, he rises and lies down often in the stable, looking towards his flanks, which are doubled and folded in; his heart beats, which may be perceived, by laying your open hands between the shoulder and sengle, on the left side; and he is also indifferent and unconcerned at what is done to him.

The Sieur de SOLEYSEL observes, when a horse has been long sick, stales without striding, and even without thrusting forth his yard, letting the water drop from the skin or sheath, it almost always portends death, unless in such horses as have that custom when they are in health; in which case you must draw no conjectures from this sign, though they continue to stale after the same manner during their sickness.

Another no less fatal sign is, when the hair of his tail, and on his skull, can be easily plucked off.

It is a dangerous sign, when a horse either never lies down, or starts up immediately, not being able to breathe freely in a lying posture; whereas if in the declension of this disease he lies down, and continues long in this posture, it is a very good sign.

When a sick horse turns up the whites of his eyes, you may conclude that he is in pain, and that his disease is of long continuance.

From these signs, you may conjecture in general, that your horse is sick, and afterwards you must endeavour to discover his particular distemper, that you may be able to apply suitable remedies; for a disease that is known, is half cured.

But to be more particular; heaviness of the countenance, extreme looseness, or costiveness, shortness of breath, loathing of meat, a rotten cough, slowness of pace, hollowness of flanks, hanging down of ears, *&c.* but especially if an horse, who before was usually of a cheerful countenance, hangs down his head, it is a sign of a fever, head-ach, the staggers, or sore eyes.

If he turns his head backward on the right side, to the part aggrieved, it indicates an obstruction in the liver; but if down to his belly, of the cholic, bots, or worms.

If water runs out of his mouth, it is a sign of the staggers, or wet cough.

The hollowness of a horse's temples, is a sign either of the strangles, or old age.

A swelling about the ears indicates the poll-evil; if it be under them, it is a sign of the vives; and in the mouth, of the canker, flaps, or lampers.

If he have a stinking breath, or foul matter issues from his nostrils, it is an indication that he has an ulcer in his nose or head; if the matter be black, it is a sign of the mourning of the chine, or the like; and if white, of the glanders; if yellow, it shews a consumption of the liver, and rottenness of the lungs.

If his breath or body be hot, they indicate a fever and heat of the stomach; when a horse's tongue hangs out and is swelled, it indicates the stronger that his liver is inflamed; if besides he forsakes his meat, that he has either the dry or moist yellows.

Shortness of breath, and beating of the flanks, indicate a fever, or the strangles; but if the passage of his throat be stopped, it is a sign that the film of the lungs is broken, and the spleen is troubled, or else that he is broken winded.

If a horse eats and drinks little, it is a sign of a cold

liver; but if he covets to drink much, and eats but little, it is either a ſign of a fever, rotten lungs, or the dry yellows.

If there be ſwelling under his throat, it is an indication of the glanders; if about the roots of the tongue, of the ſtrangles; but if there be nothing but little knobs, like wax kernels, they indicate no more than that he has a cold.

Coughing, or an offering to cough, is a ſign of the glanders, or a wet or dry cough, or a conſumption, or foundering of the body.

If a horſe be ſcabby, and ulcerous all over his body, and about the neck, it is a plain indication that he has the mange; an ulcer full of knots, creeping about the veins, ſhews the farcy; if it ſpread abroad only in one place, it is a canker; when hollow and crooked, a fiſtula; but if it be a ſpongy wart, full of blood, it is an anbury.

A ſwelling on the left ſide, is an indication of a ſick ſpleen; in the flank, of a cholic; but if in the belly and legs, of the dropſy.

The hollowneſs of the back is an indication of the dry malady of the dropſy.

Staring of the hair indicates a bad ſtomach, or a foundering in the body; but generally a cold, or want of clothing.

Leanneſs and gauntneſs, indicate him to be hide-bound, in a conſumption; that he is troubled with a dry malady, inflammation of the liver, foundering in the body, worms, cholic, or the yellows.

Staling with pain, ſhews foundering in the body, the ſtone, or wind cholic; and if his urine be blackiſh and thick, a pain in the kidnies; but if yellow, the glanders.

Trembling is an indication of a fever, or of foundering in the body; and if a horſe trembles after drinking, it ſhows he has an ague fit upon him, and he will afterwards glow, and ſometimes he will ſweat afterwards.

Laxativeneſs, or looſeneſs of body, is an indication of the heat of the liver; and on the contrary, coſtiveneſs indicates the dry yellows, or diſeaſes of the gall.

If a horſe ſtrikes at his belly with his foot, it is a ſign of the cholic; but if in ſtriking he fiſks his tail alſo, then either bots or worms are indicated.

If a horſe lies much on his left ſide, it is a ſign of the ſpleen; and if on the right ſide, of the heat of the liver; and if he be reſtleſs, it is probable it may be cauſed by bots and worms, cholic, or griping in the belly; but if he ſpreads himſelf abroad, it indicates the dropſy; and if he groans when he is down, it betokens a ſick ſpleen, moiſt yellows, bots, or film broken; but if he is not able to riſe when he is down, it is a ſign either of a mortal weakneſs, or foundering in the body and legs.

Signs may alſo be taken from the urine of a horſe; theſe according to ſome authors, are accounted not ſo material and certain as thoſe from the dung are, yet others again ſay, they are more certain. And

That if a horſe in his ſickneſs ſtales clear, and it being ſaved and ſet by, there be no ſediment in it, it is an indication of a growing diſtemper; but if the urine turn of a reddiſh or yellowiſh colour, and has either a cloud ſwimming in it, that is not black or earthy, and a ſediment falling to the bottom, and begins to have a rank ſmell, it ſhews that the diſeaſe is beginning to break; but if the cloud be of an earthy or black colour, cohering in a body without parting, it is a ſign that the diſeaſe will prove mortal.

Again, if a horſe's urine be different at different times, ſometimes giving indications of ſoundneſs, and at other times of ſickneſs, it then intimates there is a malignity in the diſeaſe, proceeding from an inequality of the compoſition of the blood, which alſo cauſes an inequality in its motion.

Urine of a yellowiſh colour, rather thick than thin, of a ſtrong ſmell, and piercing quality, is reckoned healthful, ſound, and good; but, on the contrary, if it be of a deep red tincture, either like or inclining to blood, then the horſe has either had too great heats, by being over-ridden, or ridden too early after winter graſs.

If a horſe's urine be of a high colour, clear and tranſparent, like old *March* beer, it is a ſign there is an inflammation in his body, and he has taken a ſurfeit; if it bear a little cream at the top, it indicates a weakneſs in the back, or conſumption of the ſeed; but a green one, is a kind of a conſumption in the body; with bloody ſtrokes, is a ſign of an ulcer in the kidnies; and one that is black, thick, and cloudy, indicates approaching death.

The dung of a horſe is the beſt diſcoverer of his inward parts: the colour or complexion of which ought to be well obſerved, when he is in beſt health, and at beſt feeding; and as he is found to alter, ſo a judgment is to be made, either of his health or ſickneſs. But to be more particular:

If his dung be clear, criſp, and of a pale yellowiſh caſt, hanging together, and not ſeparating, more than as it is broke by its own weight in falling, and is neither ſo thick nor ſo thin, but that it will flat a little on the ground, and indeed both in ſcent and ſubſtance, reſemble the ordure of a ſound man, then he is clean, well fed, and without imperfection.

If again his firſt and ſecond dung be well coloured, yet fall from him in round knots or pellets, and the reſt be good, it is not much matter; for it is only an indication that he has eaten hay lately, and that will always come away firſt; but if all his dung be alike, then it is a ſign of foul feeding, and that he has eaten either too much hay, or too much litter, and too little corn.

When his dung is in round pellets, and blackiſh or brown, it is a ſign of inward heat in the body; if it be greaſy, of foulneſs, and that the greaſe is melted, but cannot come away.

If he voids greaſe in groſs ſubſtance with his dung, and it is white and clear, and comes away kindly, he is in no danger; but, on the contrary, if it be yellow or putrefied, then it is a ſign that the greaſe has lain long in his body, and, if not prevented, that ſickneſs will enſue.

Again, if the dung be ſtrong and hard, it indicates that he has had too ſtrong heats, and that he will afterwards be coſtive, if it be not prevented; if it be pale and

and looſe, it indicates either inward coldneſs of body, or too much moiſt and corrupt feeding, but if the dung is ſtinking, it ſhews the heat of the liver; but, on the contrary, if it have no ſmell, the coldneſs of the liver; but if it be undigeſted, then it is an indication either of a conſumption, or of a dry malady.

Signs may alſo be taken from the pulſe of a horſe, which may be very plainly felt upon his temples, and fore-legs; but as that method has not yet obtained, among the experienced in that way, I ſhall paſs it over.

But notwithſtanding what has been ſaid, in a more particular manner, as to the ſigns of ſickneſs in horſes, it ought to be obſerved in general, that it is a very difficult taſk to arrive at any certain knowledge of the diſeaſes of brute beaſts, and therefore it ought not to be wondered at, that even farriers themſelves are often miſtaken, as to the ſigns, becauſe they can only judge by outward appearances; and eſpecially becauſe there are many diſeaſes, that have the ſame common ſymptoms; and although a perſon may by them be aſſured that a horſe has a fever, or a ſtrangury, yet he can ſcarcely at the ſame time be certain, without a very nice examination, whether he may not have an inflammation in the pleura, or in his kidnies; for the ſigns that theſe animals uſually give in the affections of particular parts, is their turning their heads towards that part, and indeed that is not always to be depended on; for a horſe may turn his head to the right ſide of his belly, and thereby a perſon may be miſtaken in ſuppoſing that diſtemper to be a diſeaſed liver, as the horſe often gives the ſame ſign in the cholic.

SIDE; to ride a horſe ſide-ways, is to paſſage him, to make him go upon two treads, one of which is marked by his ſhoulders, and the other by his haunches.

SIDE-LAYS, (with Hunters) dogs ſet in the way to let ſlip at a deer as he paſſes by.

SIGUETTE; is a caveſſon with teeth or notches, that is, a ſemicircle of hollow and vaulted iron, with teeth like a ſaw, conſiſting of two or three pieces joined with hinges, and mounted with a head-ſtall, and two ropes, as if they were the caveſſon that in former times were wont to be put upon the noſe of a fiery, ſtiff-headed horſe, in order to keep him in ſubjection.

There is a ſort of figuette, that is, a round iron, all of one piece, ſewed under the noſe-band of the bridle, that it may not be in view.

SINEW, to unſinew a horſe, is to cut the tendons on the ſide of his head.

A horſe is ſaid to be ſinew-ſhrunk when he is over-rid, and ſo borne down with fatigue, that he becomes gaunt-bellied, through a ſtiffneſs and contraction of the two ſinews, that are under his belly.

SINEW SPRUNG, is a violent attaint, or over-reach, in which a horſe ſtrikes his toe, or hinder feet, againſt the ſinew of the fore-leg.

For cramps or convulſions in the ſinews: theſe are violent contractions or drawings together of the limbs, either throughout the whole body, or particularly in one limb or member; and proceed from cauſes either natural or accidental; if from natural cauſes, they proceed either from too great fulneſs or emptineſs.

When they proceed from fulneſs, they are cauſed by a ſurfeit, either in eating or drinking, or the want of proper evacuation.

When from emptineſs, they proceed from too frequent, and too plentiful blood-lettings, or too much and violent purgings, or too hard labour; all which fill the hollowneſs of the ſinews with cold, windy vapour, which are the only great cauſes of convulſions.

If they proceed from accidental cauſes, then it is either from ſome wound received, where a ſinew has been but half cut aſunder, or only pricked, which preſently cauſes a convulſion all over the body.

The ſigns of the diſtemper are, the horſe will carry his neck ſtiff, and will not be able to ſtir it; his back will riſe up like the back of a camel, or like a bended bow; his crupper will ſhrink inward, his fore-legs will ſtand cloſe together, and his belly will be clung up to his back-bone; when he lies down he will not be able to riſe, eſpecially from the weakneſs of his hinder limbs.

The cure: Firſt ſweat him, either by burying in a horſe dunghill, or elſe by applying hot blankets doubled, about each ſide of his heart, and body; then after his ſweat, anoint his body all over with oil of petroleum, for that is much better than oil of bay, or oil of cypreſs.

Then give him to drink the following liquor:

Take one drachm of aſſafœtida, with anniſeeds, ſeeds of fenugreek, and cummin ſeeds, of each half an ounce; put theſe into a quart of ſtrong white wine, and add to them three or four large ſpoonfuls of olive oil, taking care to keep him warm after the drink, and to feed him with good bean bread, and warm maſhes, made of malt, ground, and warm water; and this will, in a little time, reduce his ſinews to their former ability.

But if the convulſion came accidentally, as by the prick, or half cut of a ſinew, then ſearch for the wounded ſinew, and, with a pair of ſheers, clip it aſunder, and the convulſion will ceaſe.

But if it be only a cramp, and but in one limb, then rub or chaſe the grieved part with a hard wiſp, or hay-rope, and the pain will ceaſe.

SINGLE, (with Hunters) the tail of a roe-buck, or any other deer.

SIT-FAST, } a malady in a horſe, being an
STICK-FAST, } hard knob, even as hard as a horn, that grows on a horſe's ſkin, under the ſaddle, faſt to his fleſh, which comes by a ſaddle-gall, or bruiſe; which not impoſthumating, the ſkin falls down, and looks like a hard piece of leather.

The method of curing it, is to take a long nail, with a point turned inwards, and with that, to take hold of the edge of the dead ſkin or horn, which will riſe from the ſound ſkin, and with a ſharp knife cut away the dead and hard ſkin from the ſound fleſh; and to heal it up, by pouring hot butter into it morning and evening, and when the fleſh is made even, dry and ſkin it, either with the powder of honey and lime, or with ſoot and cream mixed together, or waſh the wound either with

urine or white wine, and dry it up with the powder of oyſter-ſhells burnt, or bole ammoniac.

SKITTISH HORSE; is one that leaps inſtead of going forward, and does not ſet out or part from the hand freely, nor employ himſelf as he ought to do.

SKY-LARK: there is a great difference between one ſky-lark and another, for one may not be worth two pence, when another ſhall be worth two pounds.

This bird is very hardy, and will live upon any food in a manner, ſo that he have but once a week a turf of three-leaved graſs.

This bird is later than the wood-lark by almoſt two months, for as the wood-lark hath young ones in *March*, the ſky-lark hath rarely any till the middle of *May*.

But though in winter we ſee great flocks of theſe birds, yet we find the feweſt of their neſts of any birds, that are known to be ſo plentiful.

They commonly build in corn, or high graſs meadows, and have uſually three or four in a neſt, rarely, if ever, exceeding that number.

The young may be taken at a fortnight old, and will be brought up almoſt with any meat; but if they have at firſt ſheep's heart and egg chopped together, till they be about three week's old, or till they will feed themſelves, it will not be amiſs; and when they come to feed themſelves, give them oat-meal, hemp-ſeed, and bread, mingled together with a little egg, but let the hemp-ſeed be bruiſed; but you muſt be ſure at firſt to chuſe ſuch ſeed as have good ſweet kernels, or it will do them no good.

Being brought up young, theſe birds may be trained to any thing, but you muſt be ſure to give them ſand at the bottom of their cage, and to let them have a freſh turf every week; but they muſt have no perches in their cages, as the wood lark, for theſe are field birds.

Now as to the manner of taking an old ſky-lark, it may be done with an hobby and nets, as the wood-lark is catched. *See* WOOD-LARK.

But there are alſo other ways for it in dark nights with a trammel net, of thirty-ſix yards long, and ſix yards over, run through with ſix ribs of packthread, which ribs at the ends are put upon two poles, ſixteen feet long, made leſſer at each end, and ſo drawn between two men, half a yard from the ground every ſix ſteps, touching the ground to cauſe the birds to fly up, otherwiſe the net may be carried over them, without diſturbing them; ſo when you hear them fly againſt the net, clap it down, and they are ſafe under it.

This net will not only take ſky-larks, but all other ſorts of birds that come near, ſuch as partridges, quails, woodcocks, ſnipes, fieldfares, *&c.* and almoſt in every dark night.

Another way of taking them, is with a pair of day nets, and a glaſs, which is fine ſport in a clear froſty morning; theſe nets are commonly ſeven feet deep, and fifteen long, knit with *French* meſh, and very fine thread; theſe nets take all ſorts of birds that come within their compaſs.

Theſe larks are alſo taken with a low bell, with a great light carried in a tub, both by one man, and the net by another, or the bell is carried by one man, as alſo the tub and candles, and the net by another; and the light and theſe little bells together, ſo amazes the birds, that they lie for dead, and ſo the net is toſſed over them.

This method of birding has a great conveniency beyond the trammel net; for with the bell the fowlers can go among the buſhes, by rivers, and ſhaw-ſides, where the ſnipes and woodcocks commonly lie, and it is a ſure way of taking a covey of partridges.

The laſt way of taking larks, is in a great ſnow, by taking an hundred, or two hundred yards of packthread, faſtening at every ſix inches a nooſe made of horſe-hair, two hairs are ſufficient, if they be twiſted together; the more line the better, becauſe it will reach the greater length, and of conſequence afford the more ſport.

Then at every twenty yards you muſt have a little ſtick to thruſt into the ground, and ſo go on till it be all ſet; when you have done this, ſcatter ſome white oats among the nooſes, from one end to the other, and you will find the larks flock thither; when three or four are taken, take them out, or elſe they will make the others fly; and when you are at one end, they will be at the other end feeding; ſo that you need not fear ſcaring them away, for it makes them more eager at their food.

If the ſnow fall not till after *Chriſtmas*, theſe birds ſeldom or never prove good for ſinging; as for thoſe you intend to keep for ſinging, take them in *October*, and then they will ſing a little after *Chriſtmas*.

Of thoſe chuſe out the ſtraighteſt, largeſt bird, and he that has the moſt white upon his tail, for theſe are the moſt uſual marks of a cock.

As for a cage, you muſt let it be a large one, with a diſh in the middle, or at one end, and put alſo ſome water, when you place the turf in it, for the water cauſes the turf to grow in the cage.

If you find him wild, tie his wings for two or three weeks, till he becomes both acquainted and tame; as ſoon as you perceive him pretty orderly, untie his wings, ſtill letting him hang at the ſame place that he did.

This old bird's food muſt be hemp-ſeed, bread, and a few white oats, for he takes great delight in huſking the oats; and when he begins to ſing, give him once a week a hard egg, or ſhred him a little boiled mutton, or veal, or ſheep's heart; but you muſt not give him, or any other bird, any ſalt meat, nor bread that is any thing ſalt.

SLABBERING-BIT. *See* MASTIGADOUR.

SLACK A LEG, is ſaid of a horſe, when he trips or ſtumbles.

SLACK THE HAND, is to ſlack the bridle, or give the horſe head.

SLIMING, (in Falconry) a term uſed of a hawk, muting long-ways in an entire ſubſtance, without dropping any thing.

SLOT, (with Hunters) the view or print of a ſtag's foot in the ground.

SLOUGHT, (Hunting-term) a herd, or company of ſome ſort of wild beaſts, as a ſlought of bears.

SLOUTH-

SLOUTH-HOUND, } a dog ſo called in *Scotland*,
SLUTH-HOUND, } ſomewhat larger than a rache, and in colour, for the moſt part, brown or ſandy, ſpotted.

Theſe animals are endowed with ſo exquiſite a ſenſe of ſmelling, that they will follow the foot-ſteps of thieves, and purſue them with violence, till they overtake them; nay though a thief ſhould take the water, they will follow him, and never be quiet, till they have got what they ſeek for; for it was a common cuſtom in the borders of *England* and *Scotland*, where the people were uſed to live much upon theft, that if ſuch a dog brought his leader to any houſe, where entrance was denied them, then they took it for granted, that both the ſtolen goods and the thief alſo, were therein.

SNAFFLE, after the *Engliſh* faſhion, is a very ſlender bitt-mouth, without any branches: the *Engliſh* make much uſe of them, and ſcarce uſe any true bridles, but in the ſervice of war.

SNAFFLE, OR SMALL-WATERING BITT, is commonly a ſcatch-mouth accounted, with two very little ſtraight branches, and a curb, mounted with a head-ſtall, and two long reins of *Hungary* leather.

SNAILS may be prevented from injuring tulips and other bulbous roots, by covering them with frames four inches high, and grated ſo cloſe with iron wire, that none of theſe vermin can get through to injure them. The method uſed by gardeners to catch ſnails, is to ſeek them out by break of day, or after rain, when they come out of their hiding-places to ſeek food. Snails are commonly found on wall-fruit, and in a dewy morning you may eaſily find where they chiefly reſort; but the better way is to diſcover their haunts in a hard winter, where they may eaſily be deſtroyed. They generally are to be found in holes of walls, under thorns, behind cloſe hedges, or old trees. You ſhould be careful not to pluck the fruit they have begun to eat, for they will not begin a ſecond until they have finiſhed the firſt. If you ſet boards, bricks, or tiles, hollow againſt your pales, walls, *&c.* they will creep under them for ſhelter; where, about *Michaelmas*, they may be found, as in thoſe places they get for ſecurity during the winter; *December* is the proper time to deſtroy them, as they may eaſily then be found as above.

SNAKES AND ADDERS. To drive them from the garden, plant wormwood in various parts of it, and they will not come near it.

Or, ſmoke the place with hartſhorn, or lily roots, burnt in a fire-pan, and they will fly from the place.

Or, old ſhoes burnt, or other ſtinking ſtuff, will drive them away; or aſh-tree boughs, while green leaves are on them, laid about your ground, will have the ſame effect.

Or, take a handful of onions, and ten river crab fiſh, beat them well together, and lay it in the place where they come, and you may kill many of them together.

SNAP. Snap-angling is with two large hooks tied back to back, and one ſmaller to fix your bait on. Your tackle muſt be very ſtrong, and your line not quite ſo long as your rod, with a large cork float, leaded enough to make it ſwim upright. Your bait muſt not be above four inches long. As ſoon as ever you perceive the cork to be drawn under water, ſtrike very ſtrongly without giving the fiſh time, otherwiſe he will throw the bait out of his mouth. When you find he is hooked, maſter him as ſoon as you can, and with your landing-net under him get him out of the water. Some prefer a double ſpring hook, and put the bait on by thruſting the wire into the middle of its ſide, and through its mouth, ſewing up the mouth afterwards. *See* ANGLING.

SNARE; a trap or gin to catch beaſts, birds, *&c.* among fiſhermen, a wire-gin, ſtall-net, or wile.

SNET, (Hunting-term) the fat of all ſorts of deer.

SNIGGLING, OR BROGGLING FOR EELS, is another remarkable method of taking them, and is only to be practiſed on a warm day when the waters are low. This requires a ſtrong line of ſilk, and a ſmall hook baited with a lob-worm. Put the line into the cleft of a ſtick, about a foot and a half from the bait, and then thruſt it into ſuch holes and places before-mentioned, where he is ſuppoſed to lurk; and if there be one there, it is great odds but he takes your bait. Some put that part of the line next the hook into the cleft; but however that be, it muſt be ſo contrived, that the line may be diſengaged from the ſtick, without checking the eel when he takes the bait. When he has ſwallowed it, he is not to be drawn out haſtily, but after he is pretty well tired with pulling, and then you will make him more ſecure.

N. B. When you broggle under a bridge with a boat, take care it does not ſtrike againſt the bridge, nor diſturb the water; either of which will drive them into their holes ſo far, that they will ſcarcely ever bite. The beſt and largeſt eels are caught in the *Merſey* by this method.

SNIPES; in order to take ſnipes, take a large number of birchen twigs, as fifty or ſixty, or more, at your pleaſure, and lime them very well together.

Having done this, go in ſearch after ſuch places where ſnipes do uſually frequent, which may be known by their dung.

They will lie very thick in thoſe places, where the water lies open in hard, froſty, or ſnowy weather; and having taken notice of the place where they moſtly feed, ſet what number of twigs you pleaſe, at a yard diſtance one from another, and ſet them ſloping, ſome one way, and ſome another; then retire to a convenient diſtance from the place, and you will find there will be ſcarce one ſnipe in ten will miſs the lime twigs, by reaſon that they ſpread their wings, and fetch a round cloſe to the ground, before they alight.

When you ſee any taken, do not ſtir at firſt, for he will feed with the twigs under his wings, and as others come over the place, he will be a means to entice them down to him.

When you ſee the coaſt clear, and that there are not many that are not taken, you may then take them up, faſtening one or two of them, that the others flying over, may alight at the ſame place.

If there be any other open place, near to that where you have planted your twigs, you muſt beat them up: the reaſon why they delight to haunt open places, and where

where ſprings run with a gentle ſtream, is becauſe they cannot feed, by reaſon of their bills, in places that are hard and ſtony, and about theſe plaſhes in ſnowy weather they very much reſort.

SNORT; is a certain ſound, that a horſe, full of fire, breathes through his noſtrils, and ſounds as if he had a mind to expel ſomething that is in his noſe, and hindered him from taking breath.

The noiſe, or ſound, is performed by the means of a cartilage within the noſtrils.

Horſes of much mettle ſnort when you offer to hold them in.

To SOAR; to fly high as ſome birds do.

SOAR-AGE, (in Falconry) a term uſed of hawks, to ſignify the firſt year of their age.

SOAR-HAWK; is a hawk ſo called from the firſt taking her from the eyrie, till ſhe has mewed, or caſt her feathers: theſe, as well as the branches, are to be diligently taught, and the falconer muſt bring them off from their ill cuſtom of carrying, by giving them large trains, by which means they will learn to abide on the quarry. *See the Article* SPARROW-HAWK.

SOILING THE HORSE; without poſſibility of diſpute, is a conſideration of the firſt magnitude. To feed, lie, and roam at large, upon the graſs of the earth, and to have his body conſtantly wetted with the dew of heaven, is the natural ſtate of the horſe, in which, by conſequence, he muſt enjoy a ſuperior portion of health and happineſs, and without an occaſional recurrence to which, he can only poſſeſs a partial and imperfect ſhare of either. We ſhall, therefore, in place of argument, appeal to men's conſtant experience, and without heſitation, lay it down as a rule, that in order to cool and re-invigorate the limbs, and purify the blood and juices of horſes, and to enable them to endure to their lateſt period, it is abſolutely neceſſary that they be allowed an annual run, of at leaſt ſix weeks at ſpring graſs. Where horſes cannot be ſpared from the ſtable, the uſual ſubſtitute in town, is to ſoil them at home upon green tares; this, at leaſt, ſurely never need be omitted, being within the reach of almoſt every keeper of horſes. We will barely repeat the old caution, to give the green meat freſh, becauſe if kept till its juices be exhaled, it not only becomes uſeleſs as to the original intent, but tough and indigeſtible, and apt to occaſion dangerous obſtructions.

Natural graſs, Mr. LAWRENCE ſays, is ſuperior, and more likely to anſwer the intended purpoſe of ſtable ſoiling, than tares or any other herbage; from repeated trials it has been found, that horſes and horned cattle prefer it to all other green meat, without even excepting the ſo often and highly celebrated lucern. The great bulk of the artificial graſſes is an important object, but no doubt can be entertained of the ſuperior quality of the natural, either green or dry. When the vaſt conſequence of graſs is conſidered, both in relation to quantity and quality, the neglected ſtate of our meadows and paſture lands, in many parts of the country, may well be wondered at, and the queſtion naturally aſked, why the ſimple herbage ſhould not be cultivated with the ſame care and aſſiduity as corn: it has been known to repay immenſely the expence of manure, of pure and good ſeed brought from a conſiderable diſtance, and of the moſt attentive culture. There cannot be a more improvident practice, whether in a public or private view, than withholding ſo tenaciouſly old, foul, unproductive meadow from the plough; the breaking up of which would pay ſo abundantly in the firſt inſtance, and ſtill more largely in the ſucceeding graſs crops. It is obvious nothing more is needed, in this caſe, than to adopt improved methods of laying down to graſs.

Previous to turning a horſe to graſs, it has been the cuſtom with ſome to call in the aſſiſtance of medicine; we know of no neceſſity for ſuch ſteps, with the exception indeed, that if the horſe ſhould be exceſſive plethoric, or full of blood, dull and heavy-eyed, it would be highly proper to bleed him a few days before his departure: the eyes of horſes, in ſuch ſtate of body, are in great danger while feeding abroad. Abridge his clothing, and accuſtom him to the cold by degrees; and if you turn him into the paſture upon the approach of night, according to the advice of Mr. MARSHALL, it will be an additional ſecurity againſt catching cold; ſince the charms of his new ſituation will induce him to rove about, until the morning ſun ſhall have prepared him a warm and dry couch, on which he may repoſe in ſafety.

If the feet be too ſtrong and deep, take down the cruſt with diſcretion, that the frog may come fairly in contact with the earth. The proper graſs ſhoes are narrow tips, juſt wide and long enough to cover the cruſt, and prevent its being broken, and the inſpection of the farrier is neceſſary, at leaſt once a month, to replace in caſe of wear or accident, and to prevent the too great length of the toe; in very dry ſeaſons, and hard paſtures, and where horſes are much driven by the flies, their feet will demand conſtant attention, or they may come up with the cruſt ſo ſplintered and damaged, as ſcarcely to afford ſufficient hold for a ſhoe. If a ſervant be ſent to inſpect horſes at graſs, and there ſhould be a neceſſity for employing a country blackſmith, care ſhould be taken to reſtrain him from his favourite operation upon the frog, the binders, or the ſole.

The graſs of the ſalt-marſhes is univerſally celebrated for its alterative and reſtorative qualities; it powerfully provokes the different ſecretions at firſt, until having become habitual to the conſtitution, it nouriſhes in the ſame degree: the farriers ſay, it will cure every malady of the horſe except rottenneſs; and theſe doctors imitate their betters, who when they have ineffectually exhauſted their whole art upon a patient, always ſend him to *Bath*. Thoſe paſtures within reach of the *London* manure, are deemed inſalubrious on that account, as being forced and rank; the gramineous product of low, fenny ſoils, is alſo ſour, and defective in nouriſhment; ſweet, herbaceous, upland graſs having in all accounts, the preference for horſes: hilly paſtures are preferable, and in a ſtill higher degree for foals.

In our fortunate climate, ſo free of dangerous extremes, a horſe may run all the ſummer in defiance of heat or inſects, and will be much better in health than he could poſſibly be kept in the ſtable; but if only the

uſual

uſual period of foiling be allowed him, that is to ſay, a month or two, no doubt but every one would chooſe to have it early, whilſt the graſs is young, and the heat moderate; choice ſhould alſo be made of paſtures well ſhaded, and well watered.

Cutting graſs, and carting it to the ſtable, is an immenſe ſaving upon a farm, greater, indeed, than could be conceived, until repeated by experience, the quantity of dung alſo raiſed by that means is an important conſideration; but the attendant inconvenience is the keeping horſes ſhut up in a hot and unwholeſome ſtable, at the very ſeaſon when lying abroad is ſo natural and beneficial to them; in truth, poor animals, it is a treſpaſs upon their health and their feelings, it is abridging the too ſcanty reward of their never-ending labours.

Every body knows that there are ſalt-marſhes, a few miles to the eaſtward of the metropolis, where horſes are received; and, I believe, intelligence thereupon is uſually to be obtained at one of the inns in *Smithfield*. As to the other places of reception for grazing horſes around *London*, the different parks applied to that purpoſe are to be preferred, on account of the ſecurity, good attendance, range, and ſhade. The merits of *Buſhey* and *Kempton Parks* as excellent feeding grounds, whence they never fail to return full of firm good fleſh.

A winter's run at graſs, from the aſtrictive effect of cold upon the animal fibre, is juſtly held the moſt natural and efficacious method of recovering the tone of the ſinews in over-worked horſes; it is farther much to be preferred, as well on the ſcore of expence as of health, to ſtanding unexerciſed, and uſeleſs in the ſtable: the only queſtion is, how to carry this meaſure into effect, with judgment.

Small indeed is the advantage, in any point of view, of the common ſhilling and eighteen penny methods, of turning a horſe off to ſtarve all the winter upon ſtraw; for the benefit which may be ſuppoſed to be derived to his limbs, will perhaps be fully counter-balanced by the impoveriſhment of his blood, and the conſequent ruin of his condition; and when taken up with his diſtended carcaſe, long coat, and bare bones, half a ſummer had need be ſpent in bringing him to decent order, either for uſe or ſale: the ſpring graſs is the beſt remedy to repair the waſte of a winter ſo ſpent, and even then his fleſh will melt in work like butter. To be wintered abroad to any ſalutary purpoſe, a horſe muſt have plenty of good hay, and ſufficient ſhelter by night or day, againſt the inclement extremes of the ſeaſon, in a dry hovel, or warm ſtraw-yard; but if to this ſhould be ſuperadded a moderate daily allowance of corn, ſuch a method would be the moſt powerful reſtorative, of which the nature of the horſe is ſuſceptible. Certain of the hardy, common-bred, thick-hided horſes, will endure the utmoſt rigours of the winter unſheltered, and make a tolerable ſubſiſtence upon the faint and unſubſtantial herbage of the ſeaſon; but even theſe would be better by all the coſt, for more liberal keeping; others will make a ſhift barely to exiſt under ſuch harſh treatment, and a random view of this leads inconſiderate people, who have a general idea of the benefits of a winter's run, to commit the barbarous folly of expoſing emaciated and thin-ſkinned horſes, perhaps juſt taken from a hot ſtable, upon open heaths or marſhes, where they are literally tortured to death by the cold; dying by inches, under all the horrors of an intermittent. Nature ſhrinks from extremes, and expands herſelf to the moderate and gradual application only, of the moſt proper remedies. Experience fully proves, that all the domeſtic animals of northern climates ſhould be ſheltered by night, during the winter ſeaſon.

SOLDIER's OINTMENT; a medicine for a horſe that is ſhoulder-ſplaited, which you may prepare after the following manner: Take twelve ounces of freſh bay-leaves, ten ounces of rue, four ounces of mint; ſage, wormwood, roſemary, and baſil, of each two ounces: five pounds of olive oil, one pound of yellow wax, and half a pound of *Malaga* wine; bruiſe all the leaves, and boil the whole to the conſiſtence of an ointment, and keep it for uſe.

SOLE OF A HORSE, is a ſort of a horn, that is much tenderer than the other horn that encompaſſes the foot, and by reaſon of its hardneſs, is properly called the horn or hoof.

TO TAKE OUT THE SOLE, is to do it without touching the horn of the hoof, for if you take off the horn, you make a hoof caſt.

The ſole is taken out for ſeveral infirmities, and a horſe that has been unſoled, will recover in a month's time.

The ſole ought to be thick and ſtrong, and the whole lower part of the foot, where the ſhoe is placed, hollow; when a ſhoe is right ſet, it ſhould not at all reſt upon the ſole, and but very ſeldom touch it.

CROWNED SOLE, is when the foot is ſhaped like the back part of an oyſter-ſhell, and the ſole higher than the hoof; ſo that the whole foot is quite filled up on the lower part.

HIGH SOLED; a horſe is ſaid to be ſo, whoſe ſole is round underneath, ſo that it is higher than the hoof, which oftentimes makes a horſe halt, and hinders the ſhoeing of him, unleſs the ſhoe be vaulted.

The ſhoe of a horſe ought to be ſo ſet upon the hoof, as not to bear upon the ſole; for otherwiſe the ſole would be hurt, and not only make the horſe lame, but corrupt the fleſh that ſeparates it from the coffin bone.

SORE (with Hunters) a male deer from four years old.

SORING (with Sportſmen) the footing of a hare in open fields; for then the huntſmen ſay ſhe ſores.

SORRANCES; maladies incident to horſes, and are accounted twofold, as either an evil ſtate or compoſition of a horſe's body, which is to be diſcerned either by the ſhape, number, quantity or ſight of the member diſeaſed; or it is the looſening and diviſion of an unity, which as it may change diverſely, ſo it has divers names accordingly; for if ſuch a looſening and diviſion be in the bone, then it is called a fracture, if in any fleſhy part, a wound or ulcer; if in the veins, a rupture; if in the ſinews, a convulſion or cramp, if in the ſkin, an excoriation. *For the cure, ſee* WATER *for* SORRANCES.

SORREL; is a reddiſh colour, with which the mane

mane ought to be red or white: it is diſtinguiſhed according to the degrees of its deepneſs, into a burnt ſorrel; and a bright or light ſorrel; but, generally ſpeaking, it is the ſign of a good horſe.

SOUND; a horſe is ſuch, that does not halt.

When a jockey ſells a horſe, he warrants him ſound, hot or cold; that is, that he does not halt, neither when you mount him, nor when he is heated, nor yet after alighting, when he ſtands and cools. *See* WARRANTRY.

SOUND, } (with Hunters) a term uſed for an
SOUNDER, } herd, or company of wild hogs, boars, or ſwine.

SOURIS, is a cartilage in the noſtrils of a horſe, by the means of which he ſnorts. *See* SNORT.

SPADE; a gelded beaſt, alſo a deer of three years old.

SPANIEL; there are two ſorts of dogs which neceſſarily ſerve for fowling; the firſt findeth the game on the land, and the other on the water. *See* WATER-SPANIEL, DOG, *&c.*

Such ſpaniels as delight on the land, play their parts either by ſwiftneſs of foot, or by often queſting to ſearch out and to ſpring the bird for further hope of reward, or elſe by ſome ſecret ſign and privy token diſcover the place where they fall.

The firſt kind of ſuch ſerve the hawk, the ſecond the net or train.

The firſt kind have no peculiar names aſſigned them, except they are named after the bird, which by natural appointment he is allotted to take; upon which account ſome are called dogs for the falcon, the pheaſant, the partridge, and the like: they are commonly called by one name, *viz.* ſpaniels, as if they originally came from *Spain*.

The ſpaniel requiſite for fowling on the water partly by natural inclination, and partly by diligent teaching, is properly called a water-ſpaniel, becauſe he has uſual recourſe to the water, where all his game lies, namely, water-fowl, which are taken by their help in their kind.

His ſize is ſomewhat large, but not extraordinary, having long, rough, and curled hair, which muſt be clipt at proper times, for by leſſening the ſuperfluity of his hair, they become more light and ſwift, and are leſs hindered in ſwimming.

The principal game of theſe dogs are ducks and drakes, whence he is called a duck-dog, or dog for a duck, becauſe his excellency lies in that ſport. *See* WORMS *in* DOGS *how to cure*.

The Diſtemper of Spaniels.

The mange is a capital enemy to the quiet and beauty of good ſpaniels, which not only torments them, but frequently affects others.

For the cure: take a pound of barrow-flick, three ounces of common oil, four ounces of brimſtone well powdered, two ounces of ſalt well powdered, and the ſame quantity of wood-aſhes well ſifted and ſearſed; boil all theſe in a kettle, or earthen pot, and when they are all well incorporated together, anoint the ſpaniel therewith three times every other day, either in the ſun, or before the fire; then waſh him all over with good ſtrong lye, and this will kill the mange.

But do not forget to ſhift his litter and kennel often.

If the ſpaniel loſes his hair, as it often happens, then bathe him in the water of lupines and hops, and anoint him with ſtale and barrow-flick.

This ointment, beſides the cure, will make his ſkin look ſleek and beautiful, and kills the fleas, that are diſquieters of dogs, and enemies to their eaſe.

If this be not ſtrong enough to root out this malady, then take two quarts of ſtrong vinegar, common oil ſix ounces, brimſtone three ounces, ſoot ſix ounces, two handfuls of ſalt pounded, and ſifted fine; boil all theſe together in the vinegar, and anoint the dog as before directed.

But this medicine muſt not be uſed in cold weather; for it may then endanger the dog's life.

But if the ſpaniel be not extremely afflicted with the mange, then he may be eaſily cured as follows:

Make bread with wheaten bran, with the roots, leaves, and fruit of agrimony well pounded in a mortar, and made into a paſte or dough, and then baked in an oven; give this to the dog, and let him have no other bread for ſome time, letting him eat as much and as long as you will.

The formica is alſo a ſcurvy malady, which very much affects a ſpaniel's ears, and is cauſed by flies, and their own ſcratching with their feet.

In order to the cure, infuſe gum tragacanth four ounces, in the ſtrongeſt vinegar you can get, for the ſpace of a week, and afterwards grind it on a marble ſtone, as painters do their colours, adding to it roche-alum, and galls reduced to powder, of each two ounces; mingle all theſe together, and lay them on the part affected.

For a Swelling in the Throat of Spaniels.

By reaſon of a humour diſtilling from the brain, the throat of a ſpaniel will often ſwell unreaſonably.

In order to a cure, anoint the part aggrieved with oil of chamomile, then waſh it with vinegar, mixed with ſalt, but not too ſtrong.

To help a Spaniel that has loſt his Senſe of Smelling.

Spaniels do ſometimes loſe their ſenſe of ſmelling, by reaſon of reſt and greaſe, ſo that they will not be able to ſpring or retrieve a fowl after their uſual manner.

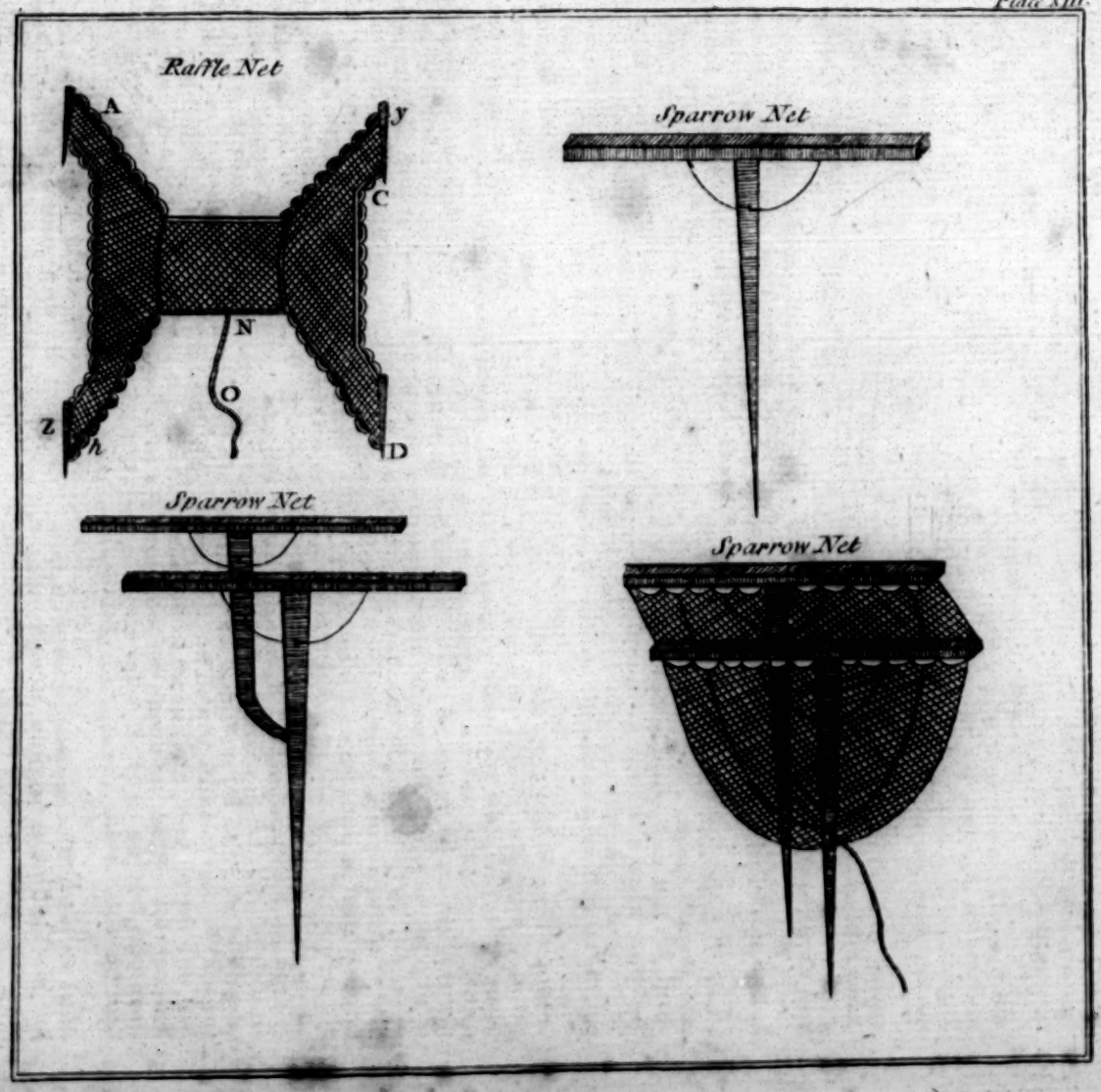
In order to recover it again, take agaric two drachms, ſal gemma one ſcruple, beat theſe into powder, and mix them well with oxymel, making a pill as big as a nut, cover it with butter, and give it the dog either by fair means or foul.

This will bring him to a quick ſcent, as has been often experienced.

The Benefit of cutting of the Tip of the Spaniel's Tail or Stern.

It is neceſſary that this be done when he is a whelp, for

Plate XIII.



for ſeveral reaſons: firſt, by ſo doing worms are prevented from breeding there; and in the next place, if it be not cut he will be leſs forward in preſſing haſtily into the coverts after his game, and beſides it will make the dog appear more beautiful.

To SPARE A COCK, in the general, ſignifies to breathe him.

SPARING, (with Cock-fighters) a term uſed to ſignify the fighting of a cock with another to breathe him, in which fights they put hots on their ſpurs, that they may not hurt one another.

SPARROW, a ſmall bird, dwelling in houſes, and frequenting barn doors and the like places for food; but upon the gathering in of the corn-harveſt, they retire into the fields for their ſuſtenance, and if any thing remote from their uſual places of abode, will in the night take up their lodgings or rooſt in the neighbouring hedges, and when no more food is left, or that it grows ſcanty in the fields, they return to their former habitations: there are many devices found out to catch ſparrows, and among the reſt, that called the ſparrow-net is uſed after ſun-ſet and before ſun-riſing, being the time when theſe birds are at rooſt. *See* Plate XIII.

The ſparrow-net is thus made; firſt have a long pole, much like a hawk's pole, and there muſt be faſtened ſtrongly at the upper end, either with one, two, or more grains, a ſmall ſquare croſs piece of wood, like unto the head of an ordinary hay-rake, but much larger for length and ſize, and of a little longer ſquare, according to the figure. *See* the Plate.

Then take another ſtaff like unto this, but not above one-third in length, and join it to the longeſt with a ſtrong cord, ſo looſely that it may fall at pleaſure to and fro from the longer croſs-ſtaff, and when both the croſs-ſtaves meet together, they may be both of equal length and height, and join together without any difference, for otherwiſe they will prove ineffectual. *See the form of the ſecond croſs-ſtaff.*

The two croſs-ſtaves being joined in this manner, fit to meet together, fix both to the one and the other a large and wide purſe-net, having this liberty at the top, that the croſs-ſtaves may fall, and part the one from the other a pretty diſtance; and the lower end of the net muſt be ſtraight and narrow, and made faſt to the ſame hole in the lower croſs-ſtaff, to which the ſhorter croſs-ſtaff before was faſtened: then take two ſmall cords or lines, which muſt be faſtened with knots to each of the ſhorter croſs-ſtaves, paſſing through the two holes, and ſo through the holes of the lower croſs-ſtaff, through which they may go and come at pleaſure, and then muſt the two ends of the wards be tied on a knot together, at ſuch an even diſtance, that the ſhorter ſtaff may fall at pleaſure from the lower as far as convenient, or the wideneſs of the net permits; and then another ſingle ward being made faſt to the laſt knot of the two cords, (which ſingle ward always carry in your right hand) draw the croſs-ſtaves cloſe together, and cloſe up the net as you find occaſion; and make with it the ſtaves and net to fly open and widen, as the place requires where you are about to ſet it: for the form and manner of the ſparrow-nets as fixed together, *ſee* the Plate.

This ſparrow-net is to be uſed early in the morning or late at night, as already noted, and muſt be ſet or fixed againſt the eaves of houſes, barns, dove-houſes, and ſuch like places; as alſo againſt ſtacks of corn or hay; and if they were thatched it would be better; and being ſet cloſe againſt them to knock and thruſt the croſs-ſtaves cloſe againſt the ſame, making a noiſe to force them to fly out into the net, and immediately draw the long ſingle line and ſhut up the croſs-ſtaves cloſe, and ſo take the birds out.

HEDGE-SPARROW; this is not ſo deſpicable a bird as ſome imagine, for if you will mind its ſong, you will find very delightful notes; and it ſings early in the ſpring with great variety.

Old or young become tame very quickly, and will ſing in a ſhort time after they are taken, if they have been taken at the latter end of *January*, or beginning of *February:* they will feed almoſt on any thing you can give them.

They commonly build in a white thorn, or private hedge, laying eggs much different from other birds, being of a very fine blue colour.

This bird is tractable, and will take any bird's ſong almoſt, if taken out of the neſt.

SPARROW-HAWKS are of ſeveral kinds, and of different plumes.

SPAVIN, a diſeaſe among horſes, which is a ſwelling or ſtiffneſs in the hams, cauſing them to halt, and is called the blood-ſpavin, that is, a ſoft ſwelling growing through the hoof of a horſe, commonly full of blood, and is bigger on the inſide, being fed by the maſter-vein, which makes it larger than the ſwelling on the outſide.

It runs on the inſide of the hoof down to the paſtern.

This malady proceeds from a corruption of the blood, cauſed by hard riding when the hoof is young and tender, which by over-heating it, renders it thin and flexible, ſo that the humour deſcending, lodges in the hoof, makes the joint ſtiff, and cauſes the horſe to go with great pain and difficulty.

As ſoon as you perceive the tumour, bathe it with hot vinegar, and apply a tight bandage round the part; and this method will in general be ſufficient to reduce the vein to its original ſize, and conſequently to cure the diſeaſe. But if this method ſhould not ſucceed, you muſt make an inciſion in the ſkin, lay the vein bare, and tie it both above and below the ſwelling by means of a needle and waxed thread. When you have performed the operation, dreſs the part daily with a compoſition of turpentine, honey, and ſpirits of wine. By this means the turgid part will digeſt away, together with the ligatures, and the cure be compleated. Or,

Firſt ſhave the hair away on both ſides of the ſwelling, as far as it goes, then take up the thigh vein, and bleed it well; when that is done, tie the vein above the orifice, and let it bleed as much as it will; then make two inciſions in the lower part of the ſwelling, as far as it goes, and after that prick two or three holes in each

ſide of the hoof where the ſpavin is, that ſo the medicine may take the better effect; and when the blood and water have evacuated as much as they will do, having beaten together bole ammoniac and the whites of eggs, bind the part about with them plaiſter-wiſe, upon linen cloth, and make it faſt about the hoof, to keep on the plaiſter; the day following take it off, and bathe the ſore place with the following:

Boil mallow tops and nettles in water till they are ſoft, and with this bathe the ſore; then having boiled together a ſufficient quantity of mallow roots, branck urſine, oil, wax, and white wine, bind this warm on the ſore, round about the hoof, and ſew a cloth round it, and let it lie on three days more, and every morning ſtroke it down gently with your hand, that the bloody humour may iſſue out, and the fourth day bathe and waſh it clean with the former bath.

Then take gum creana and ſtone pitch, of each an ounce, and brimſtone a quarter of an ounce, pound them to a very fine powder, and melt them all together on the fire; and juſt before you take them off, add half an ounce of *Venice* turpentine, and having made a plaiſter, ſpread it upon leather and lay it warm to the place, and round about the hoof, letting it remain till it fall off of itſelf; but if it happens to come off too ſoon, clap on another of the ſame.

This is eſteemed to be the beſt method of cure for this malady.

When this ſwelling appears on the inward part of the hoof, the method is to take up the thigh-vein, and to bleed it from the nether part of the leg till it will bleed no longer, and after to give fire to the ſpavin both long-ways and croſs-ways, and then to apply a reſtringent charge to the part.

Bog SPAVIN; the very nature of the tumour called the bog ſpavin, points out the moſt proper method of cure; for as it is filled with a gelatinous matter, it is neceſſary to remove it before we can hope for a cure. Let therefore the tumour be opened by inciſion, and the gelatinous matter diſcharged. When this is performed, let the wound be dreſſed with doſſils dipped in oil of turpentine, and once in three or four days a powder compoſed of calcined vitriol, alum, and bole, be put into it. By purſuing this method, the bag will ſlough away, and the cure be completed without leaving any ſcar. If through the pain attending the operation or dreſſings, the joint ſhould ſwell or inflame, it muſt be fomented twice a day, and a poultice applied over the dreſſings till it be reduced.

Bone SPAVIN, a malady to which horſes are incident; it is a great cruſt as hard as a bone, which, if let run too long, will ſtick, or rather grow on the inſides of the hoof, under the joint, near the great vein, and will cauſe the horſe to halt very much.

It comes at the firſt like a tender griſtle, which arrives by degrees to this hardneſs, and may be cauſed ſeveral ways, either by immoderate riding or hard labour, which diſſolving the blood into thin humours, it falls down and lodges in the hoof, cauſing it firſt to ſwell, and afterwards to grow as hard as a bone; ſometimes it is hereditary, either from the ſire or the dam.

Bliſtering and firing are the only remedies that can be relied on in this diſorder. And when a fulneſs on the fore part of the hock comes on after hard riding, or any other violence, which threatens a ſpavin, the part ſhould be bathed with coolers and repellers. In young horſes milder medicines ſhould be applied, as they will in a ſhort time wear the tumour down by degrees; this will be much better, than to remove it at once by more ſevere methods, which too often have a very bad effect on young creatures, and produce worſe conſequences than thoſe they were intended to remove.

But in full-grown horſes bliſtering is abſolutely neceſſary; and accordingly various authors have given preſcriptions for compounding a medicine that will anſwer the intention. I ſhall not, however, enumerate them here, as the bliſtering ointment, with the addition of one drachm of ſublimate, is the beſt yet known, and has often been uſed with the greateſt ſucceſs.

When bliſtering is uſed, the following ointment and method are well adapted to ſucceed.

Bliſtering Ointment.

Take of the ſtronger blue ointment, three ounces; of *Flanders* oil of bays, one ounce; cantharides, three drachms; ſublimate, one drachm; mix them well together. Or,

Take cantharides, euphorbium, and ſublimate, of each one drachm; *Flanders* oil of bays, one ounce; mixed.

Before it is applied the hair muſt be cut off as cloſe as poſſible, and then the ointment laid on very thick over the affected part. It will be proper to make this application in the morning, and keep the creature tied up during the whole day without any litter; but at night he muſt be littered, and ſuffered to lie down; when, in order to prevent the ointment being rubbed off, a pitch plaiſter ſhould be laid over it, and a bandage of broad tape applied upon it to keep all faſt and firm.

After the bliſter has done running, and the ſcabs begin to dry and peel off, it ſhould be applied a ſecond time, in the very ſame manner as before; for this ſecond application will often have a much greater effect than the firſt; and in colts and young horſes generally completes the cure.

But when the ſpavin has been of long ſtanding, it will require to be often renewed, perhaps five or ſix times. It will, however, be neceſſary to obſerve, that after the ſecond application, a greater interval of time muſt be allowed, becauſe it will otherwiſe have a ſcar, or at leaſt a baldneſs in the part; therefore, once a fortnight, or three weeks, is often enough to renew the application, which will remove all blemiſhes of that kind, and at the ſame time procure the ſucceſs deſired.

In full-aged horſes the ſpavins are generally more obſtinate, as being ſeated more internally; and when they run among the ſinuoſities of the joint, they are commonly incurable, as they are then beyond the reach

reach of medicine, and become of an impenetrable hardneſs.

Violent cauſtic medicines are generally made uſe of to cure theſe caſes; but it is a dangerous practice, and often deſtroys the limb. The only method is to try the bliſtering ointment, continuing according to the directions already given for ſome months, if neceſſary: the horſe being worked moderately in the intervals: by this means the hardneſs will be diſſolved by degrees, and wear away in an inſenſible manner.

Sometimes the ſpavin lies very deep, and penetrates a conſiderable way into the hollow of the joint. When this is the caſe, it will be in vain to expect ſucceſs from the medicines already preſcribed. The moſt violent cauſtic ointments prepared with ſublimate, are the only preparations that can ſucceed, and theſe are ſo dangerous, that a careful practitioner would not chuſe to uſe them. Perhaps a proper cautery made in the form of a fleam, may, by a dextrous hand, be applied to the ſpavin in ſuch a manner, as not to injure either the tendons or nerves; by this means the ſubſtance of the ſwelling will be penetrated, and the running may be eaſily continued by the help of the precipitate ointment. This method is ſafe, and therefore worth trying; as horſes of great value are often, by this diſeaſe, rendered unſerviceable.

In deſperate caſes, the following has been uſed; take up the veins that feed it, as well below as above, and give it fire; then charge the place with pitch made hot, and clap flax upon it; after four days anoint it with oil of populeon and freſh butter, melted together over a gentle fire; and when the ſcar is fallen off, apply blanco, or a white ſtuff made of jeſſoes, continuing to uſe this till it is healed.

Cleanſe elecampane root very well, wrap it up in a paper, and roaſt it till it is ſoft, then gall, rub, and chafe it well, put it on and bind it hard, but not ſo hot as to ſcald off the hair; this will take it away at twice dreſſing.

Mix twopenny-worth of oil of turpentine, and as much oil of chamomile together in a glaſs vial, and anoint the part aggrieved with it, and it will do.

Make a ſlit of the length of a barley-corn, or longer, with a knife, upon the top of the excreſcence, and raiſe the ſkin from the bone with a fine cornet, hollowing it round the excreſcence, and no more; then having ſome lint dipped in oil of origanum, thruſt it into the hole, cover the knob, and let it lie till you ſee it rot, and that nature hath caſt forth both the medicine and the core.

Put an ounce of common pepper powdered, and as much roche-alum, into a pint of anniſeed-water, and boil them together till one half is conſumed, then ſtrain and pour it into a glaſs for uſe. Apply this to the part once or twice as there is occaſion.

There is alſo the ox-ſpavin, which is a callous and griſly ſwelling, hard as a bone, and ſo painful that it makes a horſe loſe his belly; ſome horſes halt with it only at firſt coming out of the ſtable, when thoſe tumours are but young: a ſpavin at its riſe is larger towards the ply and bending of the ham than behind it, and by degrees it increaſes ſo far, that it will at length make the horſe quite lame.

The dry ſpavin, which may be perceived by the moſt unſkilful; for when a horſe in walking, with a twitch lifts one of his hind legs higher than the other, he is ſaid to have this kind of ſpavin, and will often be affected with it in both legs.

Theſe frequently degenerate into ox-ſpavins; and there is no cure for them but applying the fire; even that does not always effect the cure.

Mr. LAWRENCE, in treating of the bog ſpavin, ſays, caſt the horſe, and let a perſon preſs the wind-galls, which appear between the bones on the outſide of the hock, to render the bladder more tenſe and palpable for the operator. Keep clear of the vein, and cut boldly and deeply into the tumour. Apply the corroſive, and ſecure it by introducing doſſils of lint tied with a thread, and dipped in oil of turpentine. A little *Armenian* bole may be mixed with the powder, which ought to be uſed once in three days. Heal with a common digeſtive. If a ſwelling of the joint enſue, foment.

Oſſets, ſplents, ſpavins, diſtortions, curb, thorough-pin, and ring-bone, are bony excreſcences, differently ſituated, but all originate in the ſame proximate cauſe, an extravaſation of the cement, mucilage, or oil of the joints, which gradually condenſes and becomes oſſified. When completely oſſified they are incurable; but probably, a radical operation, judiciouſly performed, might ſucceed. The owners of all young horſes ſhould conſtantly watch the parts whence theſe excreſcences put forth, and take them in hand inſtantly, when ſucceſs need not be doubted; ſince the matter not being firmly condenſed, its abſorption might be promoted by repellents, and it might be compulſively returned again into the refluent blood. Watch any inviſible lameneſs or pain, as there is always an uneaſineſs in the parts, previous to an exoſtoſis. Rub hard three times a day, twenty minutes each time, with a piece of *Brazil* wood, or any ſmooth ſubſtance. Rub in gooſe-greaſe, and the moſt active diſcutients, camphorated ſpirits, with ſal ammoniac, and a little diſtilled vinegar, but no preparations of lead. Puncture. Bliſter a number of times. Briſk mercurial phyſic.

Suppoſing the real exiſtence of a varix, repel and bandage; if that will not ſucceed, tie the vein, a crooked needle and waxed thread being paſſed under it, both above and below the ſwelling, which muſt be ſuffered to digeſt away with the ligatures; dreſs with turpentine, honey, and ſpirit of wine.

GIBSON records a ſucceſsful operation upon a confirmed bone-ſpavin. Both he and OSMER improved upon the method of the old farriers, in this caſe; though theſe laſt, according to MARKHAM, uſed ſometimes to diſſect and lay bare the ſpavin, which they then chipped off with a fine chiſſel, a quarter of an inch broad, keeping clear of vein and ſinews: then dreſſed with verdigris and nerve oil; in three days, waſhed with vinegar; plaiſter of pitch, roſin, and turpentine; healed in ſeven days.

The ſpavin, in GIBSON'S caſe, was deeply ſeated in the hock of a hunter. He firſt applied as ſtrong a

cauſtic as he dared venture, for fear of hurting the tendons and ligaments, but ineffectually; when judging rightly that his hand poſſeſſed an elective power which the cauſtic had not, he determined on the cautery. The irons were made in the ſhape of a fleam, but not pointed; rounded on the face, and thick towards the back. Some ſmall blood-veſſels were divided, and a pretty large effuſion of blood enſued, to which a ſtyptic was applied. The wound, half an inch deep, and an inch long, with two or three ſhort lines on each ſide, was dreſſed with tow until the third day, that the hemorrhage might be fully ſtopped. Several days a gleet of viſcid water; great pain, inflammation, and ſwelling of the hock. Fomentations—Firſt dreſſings, turpentine on tow; afterwards, with finely-ground precipitate, two drachms to one ounce of turpentine. Plentiful diſcharge of thin glutinous matter, for two months, before the ſkin began to cloſe and cover the wound, when the matter became laudable. Walking exerciſe. The precipitate which entered into the nervous parts, ſuppoſed of great benefit. Phyſicked during the cure. Sore healed in three months, and the hair grew, except a ſmall ſpot, over which a defenſive plaiſter. Hunted ſame ſeaſon, and ever afterwards perfectly ſound.

Diſtortions, or luxations of the bones of the hock. By a wrench or ſtrain, ſometimes the ſmall bones are jarred and diſplaced. The ſwelling generally appears on the middle and forepart of the hock. Extreme ſtiffneſs and inaptitude to motion. If poſſible, force the bone into its place, filling up the fore part of the hock with tow, and the cavities on each ſide, and alſo all the other cavities and vacancies, applying a piece of paſteboard, ſoaked in vinegar, over the diſtortion, and binding the whole with a broad ſoft roller or liſt. Six months run at graſs.

In firing a ring bone, uſe a thinner inſtrument than common, drawing the lines barely a quarter of an inch diſtant, and croſſing them obliquely like a chain. Mild bliſter, afterwards *Burgundy* pitch plaiſter. This, however, is known not to ſucceed. As to drawing the ſole, it is perfectly uſeleſs; and the operation, as deſcribed by SOLLEYSEL, with the introduction of the red-hot knife, is dreadful to think of.

Jardons, hough-bony, or capped hocks. Indurated tumours, to be treated in the beginning, like initient ſpavins and ſplents; when confirmed, they are nearly as difficult to remove.

String-halt, although incurable, may and ought to be treated with palliative remedies, which will prevent its progreſs to the laſt ſtage, when the complaint becomes exceeding unſightly, and conſiderably diminiſhes the value of the horſe. Looſe ſtable, and as much running abroad as poſſible. After a hard day's work, a warm bath for both hinder legs, up to the hocks, as long as the water continues warm; rub bone-dry with linen cloths. Repeat in the morning. If very bad, comfortable fomentations. Anoint the back-ſinews, and about the hocks, with a liniment made of gooſe-greaſe and ſpirit doubly camphorated, well rubbed in.

SPAYARD, } (with Hunters) a red male deer that
SPAID, } is three years old.

SPEAR; the feather of a horſe, called the ſtrake of a ſpear, is a mark in the neck, or near the ſhoulder of ſome barbs; and ſome *Turkey* and *Spaniſh* horſes repreſent the blow or cut of a ſpear in thoſe places, with ſome appearance of a ſcar as it were.

This feather is an infallible ſign of a good horſe.

SPEAR-HAND, OR SWORD-HAND, of a horſeman, is his right-hand.

SPEAR-FOOT OF A HORSE, is his far foot behind.

SPRIT-NET, OR CARALET, a device wherewith great fiſh as well as ſmall may be taken, which is alſo known by other names; this is a common ſort of net, and made according to the figure in Plate III.

The meſhes of this net muſt be pretty large, that you may the more eaſily liſt it out of the water, or elſe great fiſh will be ſure to leap over it: you muſt alſo do thus; take a needle and thread, which draw through the ſides of your common earth-worms, but in ſuch a manner as not to hurt them much, to the end that they may move their heads and tails with ſtrength and vigour, that the fiſh at the ſight of them may imagine they are at liberty; then tying both ends of the thread together, hang it at Q, juſt over the middle of the net, within eight inches of the bottom; you muſt alſo have a long pole, as O, P, N, and within a foot of the ſmaller end faſten two croſs ſticks of the net, in ſuch a manner that they may hang about two inches looſe from the pole, that ſo the net may play the better. When you put the net into the water, make a little daſhing noiſe therewith, for the fiſh are very eager after ſuch novelties, and coming to ſee what the matter is, will perceive the rolling of the worms: then they will chaſe after the ſmaller fiſh, and each at his ſide begins to pull for the worms: you may know there are great ones, and good ſtore of them by their tugging and pulling the net, upon which the great end of the pole muſt be clapped between your legs, and a ſudden mount with both the hands be given to the net, and you may be ſure of all within the compaſs of it: in holding the net, it ſeems to be moſt for your eaſe to let the end reſt between your legs, with both hands a little extended on the pole, for the better ſupporting it; and let it ſometimes be ſuffered to lie flat on the ground, as the place will permit. *See* Plate III.

SPITTER, (with Hunters) a male deer near two years old, whoſe horns begin to grow up ſharp and ſpitwiſe; the ſame is alſo called a brocket, or pricket.

SPLEEN IN HORSES, a diſeaſe, cured as follows: boil a handful of agrimony in the water which the horſe is to drink mornings and evenings, chopping the leaves ſmall when they are boiled, and then mix them well with freſh butter, to be made into balls, of which give the horſe two or three at a time, in the manner of pills, with a horn of old ſtrong beer after each pill.

SPLENTS; a diſeaſe in horſes, which is a callous, hard, inſenſible ſwelling, or hard griſtle, breeding on the ſhank bone, which when it grows big ſpoils the ſhape of the leg, and generally comes upon the inſide; and if there be one oppoſite to it on the outſide, is called a peg, or pinned ſplent, becauſe it does, as it were, pierce the bone, and is extremely dangerous.

They ſeldom appear after a horſe is paſt ſix or ſeven years

years of age: few colts are without more or leſs of them, but generally they diſappear as ſtrength increaſes; though an inſtance now and then occurs, in which all means to remove them are unſucceſsful.

The ſimple ſplents are only faſtened to the bone, at a pretty diſtance from the knee, and without touching the back ſinew, and have not any very bad conſequence; but thoſe that touch the back ſinew, or are ſpread on the knee, will make a horſe lame in a ſhort time.

Horſes are alſo ſubject to have fuzes in the ſame place, which are two ſplents joined by the ends, one above the other, and are more dangerous than a ſimple ſplent.

For the cure of this malady, ſhave away the hair, and rub and beat the ſwelling with the handle of a ſhoeing hammer; then having burnt three or four hazle ſticks, while the ſap is in them, chaſe the ſplent with the juice, or water, that iſſues out at both ends, applying it as hot you can, without ſcalding the part; after that rub or bruiſe the ſwelling with one of the ſticks, and continue frequently to throw the hot juice upon the part, but ſo as not to ſcald it, and continue ſtill rubbing it, till it grows ſoft.

Then dip a linen cloth, five or ſix times double, in the hazle juice, as hot as your hands can endure it, and tie it upon the ſplent, where let it remain for twenty-four hours, keeping the horſe in the ſtable for the ſpace of nine days, not ſuffering him to be either ridden or led to water; by which time the ſplent will be diſſolved and the hair will afterwards grow on it again.

If the hazle be not in full ſap it will not operate ſo effectually, nevertheleſs it may be uſed; but then the part muſt be rubbed and bruiſed more ſtrongly. If the ſplent be not quite taken away, but only diminiſhed, repeat this operation a month after.

Another remedy, that is an approved one, is the ointment of beetles; in *April* or *May*, you may find a little black, longiſh inſect, about the foot of the ſtalk of the bulbous crow-foot. It is no bigger than a ſmall bean, having legs, but no wings, and ſo hard, that you can with difficulty bruiſe it with your fingers.

Take three or four hundred of theſe, and mix them with hog's greaſe in a pot, cover it very cloſe, till they are quite dead, and then ſtamp them to an ointment with greaſe, which, the longer it is kept, the better it will be.

Then firſt you are to ſoften and prick the ſplent, after the uſual manner, and apply this ointment to it, of the thickneſs of a halfpenny, cauſing it to ſink in, by holding a hot fire-ſhovel againſt it: this will draw out a red water, which will turn to a ſcurf or ſcab, in about nine or ten days, and afterwards fall off. But before you apply this ointment, you muſt ſoften the callous, or hard ſwelling, with a poultice made of two ounces of lily-roots, the ſame quantity of marſh-mallows; of the leaves of mallow and violets, two handfuls; one handful of dill, of wild marjorum, wild penny-royal, or corn-mint.

Boil the roots in water for about an hour, and mix the water with about three parts of oil; then put the herbs to it, and when they are well boiled, ſtamp all to maſh, ſhave off the hair, and apply it warm to the part.

SPLINT, a malady incident to horſes; this is very much like the ſplent, though ſome authors take it to be different from that diſeaſe.

This begins at the very griſtle, and will, if it be let alone too long, become as hard as a bone, growing either bigger or ſmaller, according to the cauſe from which it proceeds.

It is found, for the moſt part, on the inſide of the ſhank, between the knee and the fetlock joint, and is very hard to be cured; it is ſo painful to a horſe, that it will not only cauſe him to halt, trip, and ſtumble, but alſo to fall in his travelling.

This malady is occaſioned by too hard travelling, and much labour, or by his being over-loaded, which offends the tender ſinews of his legs; though ſome horſes are affected with it hereditarily, from their ſire or dam's being troubled with it.

It may be known both by the ſight and feeling, for if it is pinched with the thumb or finger, the horſe will ſhrink up his leg.

For the cure: firſt waſh the place, and ſhave off the hair, as is done in ſplents, and bony excretions; knock and rub it with a blood-ſtaff, or hazle-ſtick, and then prick it with a fleam; and having pounded together vervain and ſalt, of each a handful, to an ointment, apply it to the place, binding it up with a roller, and ſewing it faſt on, where let it lie for twenty-four hours.

Another method of cure is, to dip a ſtick or feather into a glaſs of oil of vitriol, and touch the place with it, and it will eat it away; but if it happens to eat too much, put a ſtop to it, by bathing the part with cold water, or you may waſh it with green copperas, boiled in water, which will not only cleanſe it from any piece of the remaining ſplent, but alſo heal it up.

In order to take away the ſplent, ſo as to leave no ſcar behind it, take a red hazle-ſtick, about the bigneſs of one's thumb, about a quarter of a yard long, and firſt knock the ſplent very well with it, cut one end of it very ſmooth, and ſtick a needle in the pith of it, leaving out juſt ſo much of the point, as will prick through the ſkin; with this prick the ſkin of the part full of holes, and then rub it all over with oil of petre, bathing it in with a hot fire-ſhovel, for four or five days ſucceſſively.

You may here take notice, that the falling down of new humours may be ſtopped by binding plaiſters, as pitch, roſin, maſtich, red-lead, oil, bole ammoniac, and the like.

Then to draw out ſuch matter as is gathered, you may make uſe of drawing ſimples, as wax, turpentine, *&c.* and laſtly, to dry up the remainder, uſe drying powder, as lime, oyſter-ſhells, ſoot, *&c.*

But remember that all ſplints, ſpavins, and knobs, ought to be taken away at their firſt beginning.

SPRAIN, } (in Horſes) a misfortune which is the
STRAIN, } extenſion or ſtretching of the ſinews beyond their ſtrength, by reaſon of a ſlip or wrench.

Strains in horſes are frequently called claps: a

ſtrain

ſtrain is, when the fibre of a muſcle or a tendon are ſo ſtretched as, more or leſs, to loſe their natural elaſticity.

Plaiſters or bandages, where they can be applied, are the principal means of cure in theſe caſes: reſolvent and ſtrengthening applications have their uſe, but the common method of rubbing greaſy ſubſtances can do no ſervice, nor do they indeed do harm, any farther than, while they are uſed, other more proper methods are neglected.

If the ſtrain is freſh, and the horſe ſtrong and full of good blood, it may be neceſſary to take away ſome, to prevent inflammation: if the part be ſwelled, and a poultice can be conveniently applied, mix bran and vinegar, or bran and verjuice together, without boiling them, into a poultice, and apply it cold, renewing it twice a day at the leaſt. If poultice and bandage cannot be applied, and the part is ſwelled and inflamed, dip flannel cloths in vinegar, or in two parts vinegar and one of ſpirits of wine, and ſtupe therewith, three or four times a day, for a quarter of an hour at a time.

If the ſwelling is not conſiderable, and the caſe a freſh one, waſh the part well with vinegar, and with ſpirits of wine, alternately; and when the ſwelling is wholly ſubſided, uſe opodeldoc in their ſtead.

After bathing the part well, if the ſituation will admit, let a ſtrong linen roller be applied pretty tight, but not ſo as to excite pain: let the roller begin a little below, and be continued a little above the affected part. If neither poultice nor bandage can be applied, more pains muſt be taken to rub the part well with vinegar, ſpirits of wine, or opodeldoc, as the preſent ſtate of the caſe may require.

Opodeldoc.

Take of camphire, three ounces; diſſolve it in rectified ſpirits of wine, half a pint; then add of the oil of origanum, two ounces; oil of turpentine, three pints; and *Venice* ſoap, thin ſliced, half a pound.

This opodeldoc may be uſed in caſe of bruiſes, numbneſs in any part, to diſperſe cold ſwellings, or it may be given inwardly, in caſe of gripes or wind from ſudden cold, ſtrangury, *&c.*

Strains in the thigh and the ſhoulder, require a long time to recover; the parts affected lie too deep to receive much advantage from external applications. In theſe caſes, the horſe ſhould immediately be turned to graſs, becauſe the gentle motion which he is led to by his own inclinations, ſuffices to prevent the joint from growing ſtiff; and more motion than he finds eaſy to himſelf would ſoon render him incurable. The advantage of reſt in theſe caſes is ſuperior to the united aſſiſtance of all other means; and a ſmall failure, by putting the horſe to exerciſe, which ſhould never be done before he is perfectly recovered, will overturn every other aſſiſtance that art can afford; ſo that care and patience, as to allowing reſt, cannot be too much enforced.

A ſtrain in the ſhoulder is called alſo a ſhoulder-wrench, a ſhoulder-pight, or a ſhoulder-ſplait. A freſh ſtrain in the ſhoulder is not difficult to diſcover; but a lameneſs there from any other cauſe, eſpecially from an afflux of humours, is not ſo eaſily diſtinguiſhed: very often, the diſeaſe affecting the whole breaſt, and the ſhoulders on both ſides, the horſe will ſtumble in going, or drop; however, uſually, it may be obſerved, that when a ſhoulder is ſtrained, to prevent the pain he does not put the leg of that ſhoulder forward; he ſets the foot of the ſound ſhoulder firmly on the ground, in order to ſave the other: when he ſtands in the ſtable, the foot of the lame ſhoulder is always advanced forward; if you trot him in hand, he brings the lame leg forward circularly, and not directly as the other; if you turn him ſhort on the lame ſide, he ſtill favours the foot of the lame ſhoulder, exerting himſelf with the other leg, and ſecuring himſelf on the ſound foot.

If the ſtrain has but juſt happened, or if it be of ſome days ſtanding, if the pain ſeem conſiderable, take away blood according to the age and the ſtrength. Bathe the whole ſhoulder well with vinegar or verjuice; after ſome days, if there ſeems to be no inflammation or ſwelling, rub it well, for a quarter of an hour every night and morning, with opodeldoc. But if the accident happened ſome time ago, and there is no ſign of inflammation, begin by rubbing the part well with opodeldoc.

When ſtrains happen to the whirl-bone and the hip, the horſe drags his leg after him; and when he trots he drops upon the heel: in this caſe, reſt is chiefly to be depended on. If the external muſcles only are hurt, the cure is eaſy, and admits of aſſiſtance from good rubbing with opodeldoc, in conjunction with reſt; but when the injured parts are ſuſpected to lie deeper, reſt alone is the beſt means.

When ſtrains happen in the hough, or in any part below it, medicines can be applied more immediately to the part, by conſequence much relief may be expected from ſuch means; reſt, the grand requiſite in all ſtrains, without exception, being indulged. If then the caſe is recent, begin with bleeding, if the inflammation requires it, and then proceed to bathe the part well with vinegar, or if any ſwelling appears, apply the poultice of bran and vinegar above mentioned. When the inflammation and ſwelling diſappears, or if the accident hath happened ſeveral days ſince, and there is neither of theſe ſymptoms, begin by rubbing the opodeldoc well on the part.

Sometimes after ſtrains in this part, there remains hard ſwellings on its outſide, which are beſt removed by bliſters, repeated as directed for the bone-ſpavin: theſe ſwellings remaining on the inſide they are rarely cured, except by firing.

The knee-pan is called the ſtifle-bone; the ligaments that ſpread over it, are ſometimes ſo relaxed by ſtrains, that it may very eaſily be moved about; and when, from accidents of this ſort, a horſe is lame, the common expreſſion is, he is ſtifled. Some are of opinion that this bone is diſlocated; but that cannot be without dividing the broad ligaments. Lameneſs in the ſtifle-bone is known by the horſe treading on his toe, not being able to ſet his heel to the ground. If the accident hath juſt happened, rub the part well with equal parts

parts of vinegar and ſpirit of wine, two or three times a-day, and apply a roller as tight as is convenient, without ſtopping the circulation or giving pain; but if a puffy ſwelling appear, uſe ſome diſcutient fomentation to diſperſe it, and finiſh by rubbing with opodeldoc, not forgetting reſt, which ſhould never be omitted, nor bandage, which ſhould always be applied where it can. The knees are ſubject to ſtrains from blows; in which caſe, the directions above given will be proper here.

The paſterns too are ſometimes ſtrained by external violences, and are, in general, to be treated as before directed; but if they continue very weak, after ſuch means being duly uſed, let him run ſomewhat longer at graſs, and if this fail the part muſt be fired.

Strains in the back-ſinews are very frequent, and are as eaſily known by their ſwelling; and when the horſe ſtands, his ſetting the lame leg always before the other. If the caſe is recent, bleed in the fetlock-vein, afterwards rub the ſinew well with vinegar; or, if much ſwelled, apply the poultice of bran and vinegar; and when the ſwelling is nearly gone, rub it with opodeldoc twice a-day: keep a tight ſtocking on, for it is, if well fitted, preferable to any bandage. The tight ſtocking on, (which ſhould be made of ſtrong cloth that will not eaſily ſtretch) is uſeful in any caſe, where a conſiderable relaxation is either a cauſe or a conſequence, as in the greaſe, *&c.* But ſometimes when the back-ſinews have repeatedly ſuffered in this reſpect, their relaxation is ſo great, as not to admit of relief, but by firing, and farther reſt at graſs.

When the coffin-joint is ſtrained, it ſoon becomes ſo ſtiff that the horſe can only ſtep on his toe, and the joint cannot be moved: in this caſe bliſtering muſt firſt be made uſe of, as directed in the bone-ſpavin, and repeat it until the joint is free, then fire: the horſe all this time running at graſs.

Rowelling is ſometimes uſeful in groſs bodied horſes, when the ſwelling hath been pretty conſiderable. Some bore the ſhoulder with a hot iron, and after that blow it up; but the operation is equally fooliſh and cruel, for it may aggravate the diſeaſe, but cannot contribute to its relief. The practice of ſome in pegging the ſound foot, or applying a patten-ſhoe, with a view to bring the lame foot on the ſtretch, is highly to be condemned, as it can only be uſeful in caſes of an oppoſite nature, *i.e.* where the contraction of the muſcles require their being ſtretched, and not farther to ſtretch the too feeble and relaxed. To conclude, let it be remembered in all caſes of ſtrains, that the chief ſervice is to be expected from reſt, and that particularly at graſs; or if that cannot be obtained, let the horſe be where he can walk about at his own pleaſure: thus will the relaxed tendons beſt recover their elaſtic force, and the voluntary motions of the horſe will prevent the ſynovia of the joint, or other cauſes, from obſtructing ſo as to render it immoveable.

Thoſe in the back are cured in the following manner:

If it be newly done, take a quart of grounds of ale or beer, a large handful of parſley, and graſs chopped; boil them together till the herbs are ſoft, then add a quarter of a pound of ſweet butter; when it is melted take it off the fire, and put it into white wine vinegar, and if it be thin, thicken it with wheat bran, and lay it upon hurds, poultice-wiſe, as hot as the horſe can bear it; remove it once in twelve hours, and give the horſe a moderate exerciſe.

Others take five quarts of ale and a quarter of a peck of glovers ſpecks, and boil them till it comes to a quart, and then apply it hot to the grief, and remove it not in five days.

Some beat *Venice* turpentine and brandy together, into a ſalve, and with it anoint the grieved part, and heat it with a fire-ſhovel, and in two or three days doing it will have a good effect.

For a SPRAIN IN THE SHOULDER, or elſewhere; that is either hid or apparent: take ten ounces of prew-greaſe, melt it on the fire, and put to it four ounces of oil of ſpike, and one of the oil of origanum, one and an half of the oil of *Exeter*, and three of that of *St. John's* wort; ſtir them all together, and put them into a gallipot, with which (being made hot) anoint the place, rubbing and chafing it in very well, holding a hot fire-ſhovel before it; do this every other day, rubbing and chafing it in twice a-day, and give the horſe moderate exerciſe.

For SPRAINS IN THE LOINS OR COUPLINGS, BRACKEN adviſes the following charge; pitch and roſin, each four ounces; turpentine, three ounces. Mix. Pour it upon the parts warm, and cover the fillets all over with tow or hurds. A ſtrengthening embrocation ſhould be alſo poured upon, and ſoaked into the parts twice a day; and after all, if the affair be ſerious or of long ſtanding, no in-door meaſures will ſucceed. If only a ſlight ſtrain, no labour of any kind, during the cure.

For a SPRAIN IN THE PASTERN-JOINT, OR FETLOCK-JOINT; make a poultice of the grounds of ſtrong beer, hen's-dung, hog's greaſe, and nerve-oil, boiled together, and applied two or three times, bound in a rag.

For an old SPRAIN ON THE LEG; clip the hair off ſo cloſe that you may ſee the paſtern-joint, then ſtrike it with your fleam, and let it bleed well, then having ſhaken oil of turpentine, and ſtrong ale or beer, very well together in a glaſs, anoint the grieved part very well with it, chafing it in, with a hot fire ſhovel held before it; and when you find that the ſwelling is abated, lay the common charge of ſoap and brandy upon it, and wet a linen rag in the ſame, and bind about it, and when the charge begins to peel off anoint it once or twice with the oil of trotters. *See more under* STRAIN.

SPREAD-NET, } a partridge-net, which may be
DRAG-NET, } made with four ſquare meſhes; ſee it deſcribed in the plate XIV. No. 3.

It is made of three pieces, the greateſt, A B F G, muſt be ſix feet long, and four broad; the other two, P Q I H, and K L X Y, four feet long, and one broad; let the grand beginning of them be faſtened at the letter Q, and then from Q R, to the end G; leave as much length or ſpace as the ſmall net is broad, which is a foot: its length terminates at the point R, from whence

whence begin to ſew the two pieces Q and R, together, and ſo get the letters P S, leaving alſo an equal length of the great net from S to B, to that from Q to G; ſew the other piece X Y, over-againſt Y T, in the ſame manner.

When you have joined the nets together, get four ſtakes the form of which is repreſented at C E N; let them be eighteen inches long, and a finger thick, with a notch at the end N, in order to faſten them at each corner, as R, S, T, U, where the nets are joined together; each of theſe ſtakes muſt have a little hole bored in them, within half a foot of the end C, that you may put in the buckle or ring E, made of iron or copper, aud reſembling the rings of bed-curtains.

Then take a pretty ſtrong packthread, the end of which you muſt thruſt into the ring of the ſtake to be tied to the corner of the net Q, R, and from thence to the corner of the ſmall net, thruſting it through all the meſhes of the edge, and bringing it out at the meſh I, and then put it through the ring of the ſtake, at the corner P, S, and from thence into the meſh, at the corner of the ſmall net B, and ſo quite about to the laſt corner G, and finally into the ring with the other end; let each of theſe two ends hang four or five feet in length, and then tie them together, as at M.

The following figure repreſents the drag-net, ſpread in order to catch partridges. No. 2.

But you ſhould firſt, a little before ſun-ſet go into ſome field, or place where you think to find ſome ſport, and there hide yourſelf, and you may ſoon know if there be any partridges, by their calling and jucking, and then they will take a ſmall flight, and ſometimes two or three before they go to rooſt; and be ſure to obſerve exactly the place where they rooſt, by making ſome mark at a diſtance, to the end that you may not have to ſeek the place in the dark; then prepare two ſtraight light poles, which muſt be as long as the net is broad, which, to do well, ſhould be about fifteen or twenty fathoms or more: they muſt be as ſtrong at one end as the other, they need not be all of one piece, but of two or three well joined; take your net, poles, and companion, with you to the place, for the ſport cannot well be performed without an aſſiſtant.

Now the figure above, more particularly repreſents a piece of corn, where partridges have been diſcovered; the ridges are denoted by the pricked lines, and the ground between the ridges, is the ſpace you find between theſe pricked lines; and laſtly, the letter R is the place where the partridges are ſuppoſed to ſtop.

The net muſt be ſpread upon the ground by two men, in a place where there are neither buſhes nor other incumbrances, to entangle it, and hinder the effects of it; then faſtening the poles A, D, and B, C, to each end, they fix the net all along to the places marked, by the ſmall ends of the thread, as in the figure; then they put packthreads into the bottom of the net, which they faſten all along the edge, at the places O, P, Q. Theſe packthreads ought to be about two feet and a half, or three feet long, with ſmall buſhes at the other end, to trail on the ground, that the partridges may be forced to ſpring, when they hear the ruſtling noiſe; and it may here be particularly noted, that the red partridges are not ſo forward to ſpring, as the grey ones.

When the net is extended, each perſon muſt take hold of the middle of the poles, lifting up the higher end of the net, about five or ſix feet from the ground, and ſetting the lower part to follow ſloping about half a foot from the ground, upon which nothing muſt drag but the three ſmall branches O, P, Q; the cord and the buſhes muſt drag on the ground, and ſhould not be above two feet long; when the partridges riſe, both muſt let go their hands, and let the net fall on the ground upon them.

Sometimes it ſo happens, that the partridges riſe before the net is over them, which may be occaſioned by the too great noiſe you make; therefore be as ſtill as poſſible, and if ſo, let them reſt two or three hours, before you attempt any thing again, then march over the whole field with your net ready ſet, and it is a great chance but you meet them at laſt.

This ſport muſt not be followed either when the moon ſhines, or when it ſnows; ſome carry a light, or ſome fire with them, the better to diſcover the partridges: which when they ſee, they take it to be day-light, and are diſcovered by the noiſe they make in waking, and ſtretching out their wings; then they hide the light, and draw the net over them.

In order to carry ſuch a light, they faſten the bottom of a corn-buſhel, or the like, to the breaſt, and the mouth thereof being turned towards the partridges, they place a tin lamp, made on purpoſe, in the bottom thereof, with a wick or match, as big as a man's little finger, ſo that the light can only be ſeen right forward, and not ſideways. Other inventions there are, and more may be found out, to carry lights for this purpoſe, with which I ſhall not amuſe the reader: that perſon who has a mind to take a covey of partridges alone by himſelf, muſt prepare two poles, made of a willow, or ſome other wood both ſtraight and light, bigger at one end than at the other, and about twelve or fifteen feet long, to which he is to faſten his net, as may be ſeen by the figure, No. 1.

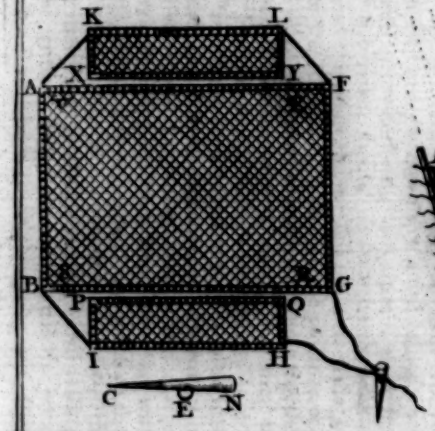
The poles muſt be faſtened along the ſides Q, S, and T, R, with packthreads, in ſuch a manner that their thickeſt ends may be at S, T, the narroweſt part of the net; which ſpread-net being adjuſted, let the ſportſman go into the field, and obſerving where the partridges are, let him carry the net in ſuch a manner, that the edge S, T, being againſt his belly, the ends of the poles, S, and T, rub againſt his ſides: and extending his arms, let him, with both his hands lay hold on the two poles as far as he can, to the end that preſſing the cord S, T, againſt his belly, he may have the more ſtrength; then holding up the net four, five, or ſix feet from the ground, let him walk along the ſide of the corn-field, and let the edge of the net Q, R, trail on the ground, on the right and left, without quitting it, if no partridges are found under it; but if any, let him drop the poles and net, and haſte to catch the game.

To SPRING PARTRIDGES OR PHEASANTS, is to raiſe them.

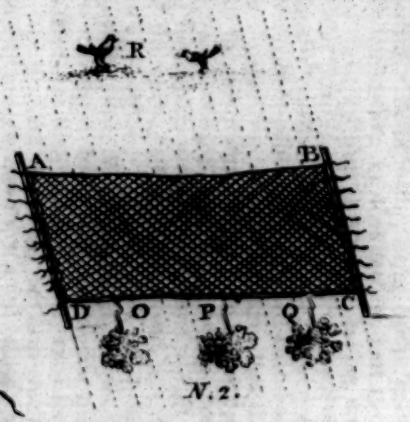
SPRINGS. Certain devices for the taking of fowls and birds, both great and ſmall; they are uſually made and

Plate XIV.

N.3. Spread Net

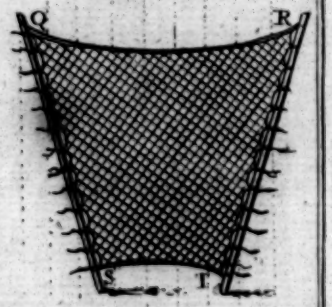


Spread Net



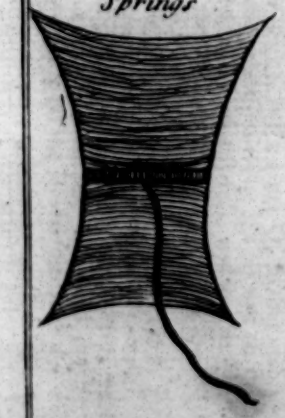
N.2.

Spread Net



N.1.

Springs



Springs

Fig. 4.

Springs

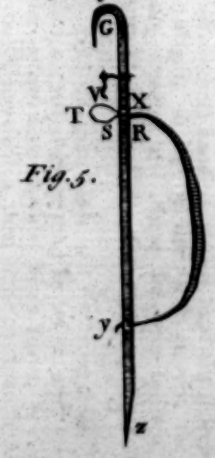
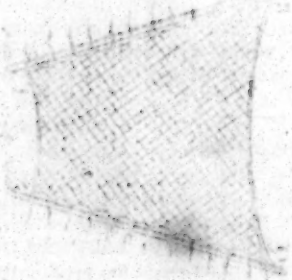
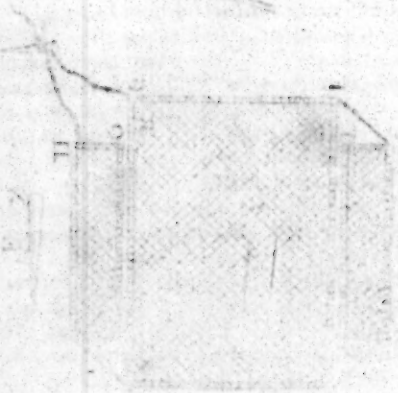


Fig. 5.





and accommodated thus: firſt, knowing weſl the fowls and the places where the flocks and couples do uſually feed mornings and evenings, and obſerving well the water-tracts, where they uſually ſtalk and paddle for worms, flat-graſs, roots, and ſuch like things, on which they feed; be ſure to take notice where ſeveral furrows or water-drains meet in one, and after a ſmall courſe divide themſelves again into other parts, or branches, this middle part being the deepeſt, and, as it were, feeding the reſt; and alſo obſerve which is moſt paddled, and fitteſt for them to wade in; for ſuch are the moſt likely places for your purpoſe. Then take ſmall and ſhort ſticks, and ſtick them croſs-wiſe, overthwart all the other paſſages, one ſtick within about half an inch of each other, making, as it were a kind of fence, to guard every way, except one, through which you would have the fowl to paſs.

This being done, take a good ſtiff ſtick, cut flat on each ſide, and pricking both ends into the water, cauſe the upper part of the flat ſide of the ſtick to touch the water, and no more; then make a bow of a ſmall hazle or willow, in the form of a pear, broad and round at one end, and narrow at the other, and at leaſt a foot long, and five or ſix inches wide, and at the narrow end a little nick or dent; then take a good ſtiff young plant of hazle, elm, or withy, being buſhy grown, and without knots, three or four inches about at the bottom, and about an inch at top, and having made the bottom end ſharp, faſten at the top a very ſtrong loop, of about a hundred horſe hairs, plaited very faſt together with ſtrong packthread, and made ſmooth and pliable, to ſlip and run at pleaſure, and this loop ſhould be of the juſt quantity of the hoop, made pear-wiſe, as before-mentioned; then hard by this loop, with ſtrong horſe-hair, within an inch and a half of the end of the plant, faſten a little broad, but thin tricker, made ſharp and equal at both ends, after the following proportion deſcribed in the firſt figure.

And then the bigger ſharp end of the plant being thruſt and fixed into the ground, cloſe by the edge of the water, the ſmalleſt end with the loop and the tricker ſhould be brought down to the firſt bridge; and the hoop made pearwiſe being laid upon the bridge, one end of the tricker ſhould be ſet upon the nick of the hoop, and the other end againſt the nick made on the ſmall end of the plate, which by the violence and bend of the plant, will make them ſtick and hold together until the hoop be moved: this done, the loop muſt be laid on the hoop in ſuch a faſhion as the hoop is proportioned; then from each ſide of the hoop prick little ſticks as aforeſaid, as it were making an impaled pathway to the hoop, and as you go farther and farther from the hoop or ſpring, ſo ſhall you widen the way, that the fowl may be entered a good way in before they perceive the fence, the firſt entrance being about the width of an indifferent furrow, ſo that any fowl falling, they may be enticed to go and wade upon the ſame, where they ſhall no ſooner touch the ſpring with their heads, feet, or feathers, but they ſhall be caught; and according to the ſtrength of the plant, you may catch any fowl, great or ſmall.

For the taking ſmaller fowl with this engine, as the ſnipe, woodcock, pewit, or the like, that uſe to feed in wet and marſhy grounds, and amongſt water-furrows or rillings, ſucking from thence the fatneſs of the ſoil, the device or engine is the ſame, without any alteration, except that it may be of much leſs ſtrength and ſubſtance, according to the fowl it is ſet for, eſpecially the ſweeper or main plant, which, as before ordered, is to be of elm, hazle, or withy, and ſo in this caſe may be of willow, ſallow, or ſtrong grown oſier, or any other yielding plant that will bend and recover its ſtraightneſs again: this kind of engine is only for the winter ſeaſon, when much wet is on the ground; but if there happens many great froſts, ſo that you are deprived of the advantage of the waters, then find out where thoſe ſtanding waters have any deſcent or ſmall paſſages, ſo as by the ſwift current the water is not frozen, and there ſet your ſprings, and the greater is the froſt, the more apt they are to be taken.

Now to take birds and fowls on trees, boughs or hedges, with ſuch or the like device, after you have obſerved any ſuch to which birds reſort, as in the figure you ſee repreſented, then chuſe any branch thereof; for example: *See* Plate XIV. Fig. 4.

The letter O, which is tall and ſtraight, cut off all the little twigs that grow about it, from the bottom until you come within four or five feet at the top, then pierce a hole through the ſaid branch with a wimble, at the letter H, which muſt be about the bigneſs of a gooſe quill; then chuſe out another twig, about four feet diſtant from the former, as marked N; and pare away all the little branches; and at the end L, tie a ſmall packthread, half a foot long, at which tie one of the running bows of horſe-hair, finely twiſted, as the letter M: you may alſo have a little ſtick P, O, four fingers long, with a little hook at the end O, and the other end round pointed; ſtoop down your branch or twig N, to which your horſe-hair collar is faſtened, and paſs the collar through the hole H, and draw it until the knot M be likewiſe drawn through; then faſten very gently the end of the ſmall ſtick P in the hole H, which muſt be ſo neatly done as only to ſtop, and no more, the drawing of the branch N; then ſpread abroad the collar upon your little ſtick P, O, and tie ſome bait, either of green pears, cherries, wheat, worms, or the like, according to the nature of the birds for which you ſet your device, at the letter Q, ſo that no birds can come to touch them unleſs he ſets his foot on the ſmall ſtick, which will preſently fall, and ſo give way to the knot M, then follows the branch or twig N, and the bird remains ſnapt by the legs.

The deſcription and the figures are ſo plain, that a miſtake cannot well be made; however, here is the form of three of them, two ready bent, one before and the other behind, and the third unbent, that you may obſerve all the ſeveral pieces. *See* Fig. 4. Plate XIV.

Another way of taking fowls or birds by ſprings, ſuch as blackbirds, thruſhes, partridges, pheaſants, or the like, is deſcribed by the following figure, which

may be placed according to the game deſigned to be taken, either on the ground, or one a tree, buſh, hedge, or the like. *See* Fig. 5. Plate XIV.

Take a ſtick of ſallow, or willow, five or ſix feet long, ſtraight and ſmooth, about the bigneſs of an ordinary walking cane, as R, Z, ſharpened at the end Z; and at the end R faſten or tie a ſmall wooden crook, as the letter G, then make a little hole at Y, about the bigneſs of a ſwan's quill, and another hole half as big at V, then take any ſtick, which, being bent, will ſpring back again and become ſtraight, as holly, or the like, let it be about three feet long, and thruſt the great end of it into the hole *o*, *p*; tie a ſmall packthread at the other end, with a collar of horſe-hair, which draw through the hole V, and ſtop it here, by pegging it very gently with a ſmall ſtick T, ſo that it may only keep it from flying back, and no more; then open your running collar of horſe-hair, as at S, and ſpread it over the little ſtick T; then tie at the letter R the bait you intend to uſe, and let it hang down within three, four, or five inches of the ſmall ſtick T, according to the bigneſs of the bird for which it is ſet.

SPUNGE OF A HORSE-SHOE, is the extremity or point of the ſhoe that anſwers to the horſe's heel, upon which the calkins are made.

SPUR, a piece of metal, conſiſting of two branches encompaſſing a horſeman's heel, and a rowel in form of a ſtar, advancing out behind, to prick the horſe.

SQUIRREL, is larger in compaſs than a weaſel, but the weaſel is longer than the ſquirrel; the back parts and all the body is reddiſh, except the belly, which is white.

In *Helvetia* they are black and branded, and are hunted at the fall of the leaf, when the trees are naked, for they run and leap from bough to bough with a ſurprizing agility, and when the trees are clothed with leaves they cannot be ſo well ſeen.

They are of three colours, in the firſt age black, in the ſecond, of a ruſty iron colour, and when they grow old they are full of white hoary hairs.

Their teeth are like the teeth of mice, having the two under teeth very long and ſharp.

Their tail is always as big as their body, and it lies continually on their back when they ſleep or ſit ſtill, and it ſeems to have been given them for a covering.

In the ſummer-time they build their neſts (which ſome call drays) in the tops of the trees, very artificially, with ſticks, moſs, and other things which the wood affords, and fill it with nuts for their winter proviſions; and like the *Aſpine* mouſe, they ſleep moſt part of the winter very ſoundly, ſo that they do not awake though you beat at the outſide of their drays.

When they leap from tree to tree they uſe their tail inſtead of wings, leaping to a great diſtance, and are borne up without any ſinking, in appearance; nay, they will frequently leap from a very high tree down to the ground, and receive no harm.

To hunt this little animal many perſons ought to go together, and carry dogs with them; and the fitteſt place for the exerciſe of this ſport, is in little and ſmall ſlender woods, ſuch as may be ſhaken by the hand.

Bows are neceſſary to remove them when they reſt in the twiſts of trees, for they will not be much terrified with all the hallooing you make, unleſs they are now and then hit by one means or another.

They ſeem to be ſenſible what a defence a high oak is to them, and how ſecurely they can lodge there from men and dogs; wherefore ſince it is too troubleſome to climb every tree, you muſt, inſtead of that labour, uſe bows and bolts, that when the ſquirrel reſts you may preſently give him a thump by an arrow; the ſhooter need not fear doing them much harm, except he hit them on the head, for by reaſon of a ſtrong back-bone, and fleſhy parts, they will bear as great a ſtroke as a dog.

If they be driven to the ground from the trees, and ſo creep into hedges, it is a ſign that they are tired; and ſuch is the lofty ſpirit of this animal, that while her ſtrength laſts her, ſhe will ſave herſelf in the tops of high trees, but being tired, deſcends and falls into the mouths of thoſe yelping curs that perſecute her.

If what is reported of them be true, the admirable cunning of the ſquirrel appears in her ſwimming or paſſing over a river; for when ſhe is conſtrained by hunger ſo to do, ſhe ſeeks out ſome rind or ſmall bark of a tree, which ſhe ſets upon the water, and then goes into it, and holding up her tail like a ſail, lets the wind drive her to the other ſide, and carries meat in her mouth, to prevent being famiſhed by the length of the voyage.

STABLE; as to the ſituation of a ſtable it ſhould be in a good air, and upon hard, firm, and dry ground, that in the winter the horſe may come and go clean in and out; and, if it may be, it will be beſt if it be ſituated upon an aſcent, that the urine, foul water, or any wet, may be conveyed away by trenches or ſinks cut out for that purpoſe.

By no means let there be any hen-rooſts, hog-ſties, or houſes of eaſement, or any other filthy ſmell near it, for hen-dung or feathers ſwallowed, oftentimes proves mortal, and the ill air of a jakes ſometimes cauſes blindneſs; and the ſmell of ſwine is apt to breed the farcin; and there is no animal that delights more in cleanlineſs, nor is more offended at unwholeſome ſavours than a horſe.

Brick is better for building ſtables than ſtone, the latter being ſubject to ſweating in wet weather, and the dampneſs and moiſture cauſes rheums and catarrhs.

Let the wall be of a good convenient thickneſs, at leaſt a brick and a half, or two bricks thick, both for the ſake of ſafety and warmth in winter, and to defend him from being annoyed with the heat in ſummer, which would hinder his digeſting his food.

It will be proper to have windows both on the eaſt and on the north ſides, that he may have the benefit of the

the north air in ſummer, and of the morning ſun from the eaſt in winter.

Let the windows be glazed, and if they be faſhed it will not only be the handſomer, but will be more convenient to let in air at pleaſure: and let there be wooden ſhutters, that you may darken the ſtable in the middle of the day, which will incline the horſe to take his reſt as well in the day as in the night.

That part of the floor on which the horſe is to ſtand ſhould be made of oaken planks, for they will be both eaſier and warmer for the horſe to lie upon than ſtones; and be ſure to lay them level, for if they are laid higher before than behind (as they generally are in inns and horſe-courſers ſtables, that their horſes may appear to more advantage in ſtature) his hinder legs will ſwell, and he can never lie eaſily, becauſe his hinder parts will be ſtill ſlipping down.

Lay the planks croſs-way, and not length-ways, and ſink a good trench underneath them, which may receive the urine through holes bored in the planks, and convey it into ſome common receptacle.

Raiſe the ground behind him even with the planks, that he may continually ſtand upon a level; and let the floor behind him be paved with ſmall pebble; and be ſure to let that part of the ſtable where the rack ſtands be well wainſcotted.

Place two rings at each ſide of his ſtall for his halter to run through, which ſhould have a light wooden logger at the bottom of it, to poiſe it perpendicularly, but not ſo heavy as to tire the horſe, or to hinder him from eating.

Dr. LAWRENCE ſays, he has known ſtables, where mangers were not uſed, but inſtead thereof, drawers, which were pulled out, and put up, as the occaſion of feeding required; a cuſtom derived from *Italy*. Indeed there is this inconvenience attendant upon fixed racks and mangers, that they are always contaminated with the breath and ſlaver of the horſe, whoſe ſtomach is alſo palled by having his foul diſhes ever before him; and it would be better, both on account of room and cleanlineſs, did it not trench too much upon convenience in another reſpect, to have both racks and mangers moveable. The modern circular rack, placed in the corner or centre, is certainly an improvement of the old form, which extended quite acroſs the ſtall, and was commonly fixed externally from the head boards, the top of the ſtaves leaning forwards, from which poſition the horſe was conſtantly in danger of receiving the hay ſeeds in his eyes. Were a moveable rack required, the round one could eaſily be contrived to ſlide up to the hay-loft, and back again, as occaſion demanded. It is remarked by ſeveral of the ancient writers, that the racks are generally placed too high, which obliges horſes to an unnatural method of feeding, and by ſtraining the neck, occaſions many to become ewe-necked.

Some recommend a drawer or locker made in the wainſcot partition, rather than a fixt manger, for him to eat his corn out of, which may be taken out to cleanſe at pleaſure.

This need not be made large, and therefore will not take up much room.

They alſo adviſe not to make any rack at all, but inſtead of it (according to the *Italian* faſhion) to give the horſe his hay on the ground, upon the litter: or elſe you may, if you pleaſe, nail ſome boards in the form of a trough, in which you may put his hay, and the boards will prevent him from trampling on and ſpoiling it.

Some again diſapprove of this way of feeding, thinking it may ſpoil his cheſt, and that his blowing upon his hay will make it nauſeous to his palate: but others again anſwer, that as to the ſpoiling of the cheſt, it rather ſtrengthens it and makes it firm; whereas, on the contrary, the lifting of his head up high to the rack, will make him withy-cragged. But the way before mentioned, he will feed as he lies, which will be for his eaſe. And as to the hay, that may be given him but by ſmall quantities at a time; and there will be this advantage in receiving his hay on the ground, the prone poſture will cleanſe his head from rheum or poſe, which he happens by any ways to have gotten, and induce him to ſneeze and to throw out all manner of watery humours that may annoy his head.

If you have ſtable-room enough you may make partitions, and at the head, towards the manger, board them to that height that one horſe may not moleſt or ſmell to another, allowing each horſe room enough to turn about, and lie down at pleaſure.

One of theſe ſtalls may be made convenient for your groom to lie in, in caſe of a match, or the ſickneſs of a horſe.

Behind the horſes may be made a range of preſſes, with pegs to hang up ſaddles, bridles, &c. and ſhelves for other utenſils, pots of ointment, &c.

And in order that the ſtable may not be encumbered with oat bins, you may make uſe of the method of a certain gentleman, deſcribed by Dr. PLOTT, in his hiſtory of *Oxfordſhire*, as follows:

Make a conveniency to let the oats down from above, out of a veſſel like the hopper of a mill, whence they fall into a ſquare pipe let into the wall, of about four inches diagonal, which comes down into a cupboard, alſo ſet into the wall, but with its end ſo near the bottom, that there ſhall never be above a gallon or ſuch a quantity in the cupboard at a time, which being taken away and given to the horſes, another gallon preſently ſucceeds, ſo that in the lower part of the ſtable, where the horſes ſtand, there is not an inch of room taken up for the whole proviſion of oats; which hath alſo this further conveniency, that by this motion the oats are kept conſtantly ſweet, the taking away of one gallon moving the whole maſs above, which otherwiſe being laid in great quantities, would be apt to grow muſty.

There alſo may be two of theſe made, the one for oats, and the other for ſplit beans, and both let into the range of preſſes, oats and beans being ſeparated above by partitions.

Let the floor over the ſtable be cieled, whether you make it a granary, or a lodging room for your

groom, that no duſt may fall from it upon your horſes.

There are alſo other requiſites, as a dung-yard, a pump, a conduit; and if ſome pond or running river were near, it were the better.

Fumigation for Stables after any infectious Diſeaſe. Immerſe a tea-cup into a pipkin of heated ſand, put into the tea-cup half an ounce of concentrated vitriolic acid gently heated, and half an ounce of pure nitre in powder. Stir them together with a glaſs ſpatula, until a conſiderable degree of vapour ariſe.

To preſerve Steel from Ruſt. Boil an ounce or upwards of camphor, in a pound of lard, ſtir till cold. Scower off the ruſt or dirt, apply the ointment, and let it remain a few hours, or a day or two; then rub clean with a dry linen cloth. This gives a good poliſh to bits, ſtirrup irons, &c. and is proper for arms, ſtoves, and ſteel furniture about to be laid by: for the latter, black lead may be added. This is an old receipt from BURDON, but the beſt I have experienced.

STABLE-STAND (in the foreſt law) a term uſed when a man is found at his ſtand in the foreſt, with a croſs-bow or long bow, ready to ſhoot at a deer, or elſe ſtanding cloſe by a tree with greyhounds in a leaſh, ready to be let ſlip.

This is one of the four evidences, or preſumptions, by which a man is convicted of intending to ſteal the king's deer, the other three being back-berond, bloody-hand, and dog-draw.

STAG. A red male deer of five years old; a well-known beaſt of the foreſt. The ſtag, or hart, the female of which is called a hind, and the young a calf, differs, both in its magnitude and in the conformation of its horns, from the fallow-deer. The ſtag is by far the largeſt; and his horns are round; while thoſe of the fallow kind are broad and palmated. The firſt year, the ſtag has properly no horns, but only a kind of corneous excreſcence, ſhort, rough, and covered with a thin, hairy ſkin; the ſecond year, the horns are ſingle and ſtraight; the third year, they have two antlers; the fourth, three; the fifth, four; and the ſixth, five. The animal's age, however, cannot always be known with certainty by theſe indications, for ſometimes they are more, and frequently leſs. When arrived at the ſixth year, the antlers do not always increaſe; and, though the number may amount to ſix or ſeven on each ſide, the ſtag's age is then eſtimated rather from their ſize, and the thickneſs of the branch which ſuſtains them, than from their number. Theſe horns, notwithſtanding their magnitude, are ſhed annually, and ſucceeded by new ones.

When the old horns are ſhed, the new ones do not immediately begin to appear; but the bones of the ſkull are then inveſted only with a tranſparent perioſteum or ſkin; which, according to anatomiſts, covers the bones of all animals indiſcriminately. This ſkin, however, ſoon becomes tumid, and forms an excreſcence containing a conſiderable quantity of blood, and which gradually appears covered with a downy ſubſtance ſoft as velvet, and nearly of the ſame colour with the reſt of the animal's hair. This tumour daily protrudes from the point like the graft of a tree; and, riſing by degrees from the head, ſhoots out the antlers on each ſide; ſo that in a few days, according to the condition of the animal, the whole head is completed.

It is neceſſary to obſerve, that, if a ſtag be caſtrated when his horns are ſhed, they will never grow again; and, on the contrary, if the ſame operation be performed while the horns are in perfection, they will never fall off. If he be deprived of only one of his teſticles, he will be deſtitute of one horn on that ſide; and, if one of them is only tied up, he will want the horn on the oppoſite ſide. The quantity of his proviſions will alſo tend to facilitate the growth and expanſion of his horns. BUFFON aſſerts, that it is poſſible to ſtop their growth entirely by a conſiderable retrenchment of food; and, as a confirmation of this aſſertion, nothing can be more obvious than the difference between a ſtag bred in a fertile paſture and undiſturbed by the hunter, and one ill-fed and liable to perpetual alarm: the head of the former is expanded, his antlers are numerous, and the branches thick; whereas the latter has but few ramifications, the traces of the blood-veſſels on them are but ſlight, and their expanſion is very inconſiderable. The beauty and ſize of their horns, therefore, mark the ſtrength and vigour of the animal; for ſuch of them as are ſickly, or have been wounded, never protrude that magnificent profuſion ſo much admired in the deer-kind.

Stags no ſooner ſhed their horns, than they ſeparate from each other, and ſeek the champaign parts of the country, remote from all other animals, which their ſituation renders them unable to oppoſe. In this ſtate of imbecility they continue near three months, before their horns attain to their full growth and ſolidity; and then, by rubbing them againſt the branches of thickets, they at length clear them of that ſkin which had before contributed to their growth and nouriſhment. Soon after theſe animals are furniſhed with new horns, they begin to find the impreſſion of the rut, or the natural deſire of propagating their kind. The old ones are generally the moſt forward in this buſineſs; and, accordingly, about the end of *Auguſt*, or the beginning of *September*, they leave the thickets, and return to the plain in queſt of hinds, whom they court with a loud tremulous voice. At ſuch ſeaſons their necks become remarkably turgid; they appear very bold and furious; fly from one place to another; ſtrike with their horns againſt the trees, and every other oppoſing object; and continue reſtleſs and fierce, till they have found the females, who at firſt avoid them, but are at laſt overtaken and compelled.

After this manner the ſtag continues to range from mate to mate for about three weeks, the extent of the rutting-time; during which period, he ſcarcely either eats, ſleeps, or reſts, ſo that he becomes lean, feeble, and timid. Having performed this duty enjoined him by nature, he retires from the herd, in order to ſeek food and repoſe; he frequents the verge of his bounds; and ſelects the moſt nouriſhing paſtures, where he continues till his ſtrength is renovated.

The colour of the *Engliſh* ſtag is generally red, or a reddiſh

reddiſh brown, with ſome black about the face, and a black liſt down the hinder-part of the neck, and between the ſhoulders: nevertheleſs, in other countries, the greateſt number of theſe animals are brown; a few of them indeed, are white, but ſuch ſeem to be tinctured with a domeſtic breed. The ſtag has the moſt beautiful eye of any animal that is a native of this climate; and his ſenſes of ſmelling and hearing are in no leſs perfection than that of viſion.

When in the leaſt alarmed, he lifts his head, erects his ears, and ſtands for a few moments as if in a liſtening poſture. Whenever he ventures on ſome unknown ground, or quits his native covert, he makes a pauſe at the ſkirt of the plain, in order to examine every object around him: after which he turns his face againſt the wind, for the purpoſe of diſcovering by his ſcent the approach of any enemy. Should a perſon at ſome diſtance whiſtle, or call aloud, the ſtag immediately ſtops ſhort in his ſlow-meaſured pace, and gazes on the intruder with a kind of aukward admiration; but, if the ſagacious animal perceives neither dogs, nor any inſtruments of deſtruction levelled againſt him, he then proceeds forward without betraying the ſmalleſt emotion of fear. Man, indeed, is not the enemy he ſeems to be moſt apprehenſive of; on the contrary, the ſound of the ſhepherd's pipe ſeems to inſpire him with pleaſure; and, accordingly, the hunters ſometimes make uſe of that inſtrument to allure the poor animal to his deſtruction.

The voice of this animal is ſtronger, louder, and more tremulous, in proportion as he advances in age; and, during the rutting ſeaſon, it is very terrible. The cry of the hind, or female, is not ſo loud as that of the male, and is never excited but through apprehenſions for the ſafety either of herſelf or her young; and, it may perhaps be unneceſſary to add, that ſhe is deſtitute of horns, and is more feeble and unfit for hunting than the male. As ſoon as ſhe has conceived, ſhe ſeparates herſelf from the males, and all intercourſe with each other is immediately ſuſpended. The time of geſtation generally continues between eight and nine months, and ſhe ſeldom produces more than one at a time.

The uſual ſeaſon of parturition is about *May*, or the beginning of *June*, during which theſe creatures are very aſſiduous to conceal their young in the moſt obſcure retreats. Nor is this a needleſs precaution, ſince almoſt every other animal then becomes their formidable enemy: the eagle, the falcon, the oſprey, the wolf, and the dog, as well as all the rapacious animals of the cat kind, are at this period in continual motion for the diſcovery of their abodes. But, what appears extremely unnatural, the ſtag himſelf is alſo their avowed enemy; and the hind is alſo obliged to exert all her induſtry in order to conceal her young from him, as one of their moſt dangerous aſſailants. At this ſeaſon, therefore, the courage of the male ſeems to be transferred to the female, for ſhe defends her offſpring againſt her leſs formidable opponents by force; and, when purſued by the hunter, even expoſes herſelf to danger for the purpoſe of diverting his attention from thoſe objects of her regard: ſhe flies before the hounds in a direct courſe with amazing fleetneſs; and, if ſhe is ſo fortunate as to eſcape with her life, ſhe returns to her young after having eluded her purſuers.

The calf, for ſo the young of this animal is called, never quits the dam during the whole ſummer; and, in winter, the hind, together with all the males under a year old, aſſemble in herds, which are more or leſs numerous in proportion to the mildneſs or ſeverity of the ſeaſon. At the approach of ſpring, the ſeaſon of geſtation, they ſeparate, none but thoſe of the age of one year remaining aſſociated. Theſe animals are, in general, gregarious; and only danger or neceſſity can poſſibly divide them.

The juriſprudence of the *Roman* empire, which was accommodated to the manners of the firſt ages, eſtabliſhed it as a law, that, as the natural right of ſuch things as have no proprietor belongs to their firſt poſſeſſor, ſo all kinds of wild beaſts, birds, and fiſhes, are the property of thoſe individuals who can firſt catch them. But the northern barbarians, who over-ran the *Roman* empire, entertaining a ſtrong reliſh for this rude amuſement, and being now poſſeſſed of more eaſy means of ſubſiſtence from the lands they had conquered, their chiefs and leaders began to appropriate the ſole right of hunting; and, inſtead of a natural right, they made it the privilege of royalty. When the *Saxon* kings, therefore, had eſtabliſhed themſelves into an heptarchy, the chaſes were reſerved by each ſovereign for his own particular diverſion; the arts of war and hunting, in thoſe uncivilized ages, conſtituted the only employments of the great; their active, but uncultivated minds, were ſuſceptible of no pleaſures but ſuch as were of a violent kind, procured exerciſe for their bodies, and charmed away the languor of reflection. But, as the *Saxon* kings appropriated thoſe lands only to the buſineſs of the chaſe which before lay waſte, ſo no individual received any injury from the reſtraint.

The caſe, however, was totally altered when the *Norman* kings got poſſeſſion of the throne; the paſſion for hunting was then carried to exceſs, and every civil right was involved in univerſal ruin. Even in a ſuperſtitious age, the ardour for hunting was ſtronger than the conſideration of religion: the village communities, nay, even the moſt ſacred edifices, were thrown down, and turned into one extenſive waſte, in order to make room for animals which were the objects of a tyrant's heedleſs pleaſures; ſanguinary laws were enacted for the preſervation of the game; and, in the reigns of WILLIAM RUFUS and HENRY I. it was leſs criminal to commit murder than to deſtroy a beaſt of chaſe. This royal tyranny prevailed while the *Norman* line filled the throne; but when the *Saxon* line was reſtored unto HENRY II. the impolitic rigour of the foreſt laws was meliorated: the barons alſo, for a conſiderable time, imitated not only the encroachments, but alſo the amuſements, of their monarchs; yet, when property began to be more equally diſtributed, through the introduction of arts and the progreſs of induſtry, theſe extenſive hunting-grounds became more limited; and, as tillage and huſbandry increaſed, beaſts of chaſe were obliged to give way to thoſe which mankind had taken more immediately under their protection.

In the preſent cultivated ſtate of this country, ſtags

are

are almoſt unknown in their wild natural condition; and ſuch as remain among us, are kept under the name of red-deer, together with the fallow-deer; but they are conſiderably leſs numerous than formerly. Their exceſſive ferocity, during the rutting-ſeaſon, and the coarſeneſs of their fleſh, have contributed in a great meaſure to their extermination.

The few that ſtill remain in a wild ſtate are found on the moors which border on *Cornwall* and *Devonſhire*; in the highlands of *Scotland*; and, in *Ireland*, on the mountains of *Kerry*, where they eſſentially add to the magnificence and beauty of the ſcenery of the celebrated lake of *Killarney*.

Deer, fallow; theſe are ſmaller, leſs robuſt, and leſs ſavage, than thoſe of the ſtag kind: they are ſeldom found wild in the foreſts, but are generally bred up in parks, and kept for the purpoſes of hunting or of luxury, their fleſh being reckoned far ſuperior to that of any other animal. Their horns are palmated at their ends, pointing a little forwards, and branched on the hinder ſide; there are two ſharp and ſlender brow-antlers, and above them two ſmall ſlender branches. The colour of this deer is various, reddiſh, deep brown, white, and ſpotted; and its tail is longer than that of the ſtag.

The fallow-deer and the ſtag reſemble each other ſtrongly: they are alike in form, alike in diſpoſition, alike in the ſuperb furniture of their heads, in their ſwiftneſs, and in their timidity; and yet no two animals avoid each other with more fixed animoſity. They never engender together, or even herd together; they form diſtinct families, which, though ſeemingly near, are ſtill greatly remote.

The fallow-deer is eaſily tamed, and feeds upon many articles which the ſtag refuſes; by which means its veniſon is better preſerved. This animal alſo browſes cloſer than the ſtag, and is therefore very prejudicial among young trees, which it often ſtrips too cloſe for recovery. It ſeeks the female at its ſecond year, and, like the ſtag, is fond of variety. The doe goes about eight months with young, and, in general, brings forth but one at a time. The buck and the ſtag differ eſſentially in ſome particulars; the buck comes to perfection in three years, and lives ſixteen; but the ſtag is ſeven years before he comes to perfection, and lives forty years. In general the ſtrength, cunning, and courage, of the buck, are inferior to thoſe of the ſtag, and conſequently it cannot afford a chaſe ſo long, ſo various, nor ſo obſtinate; beſides, it treads lighter, and leaves a leſs powerful ſcent, ſo that the dogs, in the purſuit, are more frequently at a fault.

We have in *England* two varieties of fallow-deer, which are ſaid to be of foreign origin; the beautiful ſpotted kind, ſuppoſed to have been brought from *Bengal*; and the very deep brown ſort, which are now ſo common in many parts of this kingdom: they were introduced here by King JAMES the Firſt, from *Norway*, where he paſſed ſome time when he viſited his intended bride, MARY of *Denmark*: he obſerved their hardineſs, and that they could endure the winter without fodder, even in that ſevere climate. He firſt brought ſome into *Scotland*, and from thence tranſported them into his chaſes of *Enfield* and *Epping*, to be near his palace of *Theobalds*; for that monarch, it is very well known, was fond of hunting to exceſs. Since that time they have greatly multiplied in many parts of this iſland, and *England* is now become more famous for its veniſon than any other country in the world.

STAG-HUNTING. The chaſe of the ſtag requires a ſpecies of knowledge which can only be learned by experience: it implies a royal aſſemblage of men, horſes, and dogs, all ſo trained, practiſed, and diſciplined, that their movements, their reſearches, and their ſkill, muſt concur in producing one common end. The huntſman ſhould know the age and the ſex of the animal; he ſhould be able to diſtinguiſh with preciſion, whether the ſtag he has harboured with his hound be a knobber, a young ſtag, in his ſixth or ſeventh year, or an old ſtag. The chief marks which convey this intelligence, are derived from the foot, and the excrement. The foot of the ſtag is better formed than that of the hind or female. Her leg is more groſs and nearer the heel. The impreſſion of his feet are rounder, and farther removed from each other. He moves more regularly, and brings the hind-foot into the impreſſion made by the fore-foot. But the diſtance between the ſteps of the hind are ſhorter, and her hind-feet ſtrike not ſo regularly the track of the fore-feet. As ſoon as the ſtag acquires his fourth horns, he is eaſily diſtinguiſhed; but to know the foot of a young ſtag from that of a hind, requires repeated experience. Stags of ſix, ſeven, *&c.* years, are ſtill more eaſily known; for their fore-foot is much larger than the hind-foot; the older they are, the ſides of their feet are the more worn; they always place their hind-foot exactly in the track of the fore-foot, excepting when they ſhed their horns; the old ſtags miſplace, at this ſeaſon, nearly as often as the young ones; but in this they are more regular than the hind or young ſtag, placing the hind-foot always at the ſide of the fore-foot, and never beyond or within it. When the huntſman, from the dryneſs of the ſeaſon, or other circumſtances, cannot judge by the foot, he is obliged to trace the animal backwards, and endeavour to find his dung. This mark requires, perhaps, greater experience than the knowledge of the foot: but without it the huntſman would be unable to give a proper report to the company. After the report of the huntſman, and the dogs are led to the refuge of the ſtag, he ought to encourage his hound, and make him reſt upon the track of the ſtag, till the animal be unharboured. Inſtantly the alarm is given to uncouple the dogs, which ought to be enlivened by the voice and the horn of the huntſman. He ſhould alſo diligently obſerve the foot of the ſtag, in order to diſcover whether the animal has ſtarted, and ſubſtituted another in his place. But it is then the buſineſs of the hunters to ſeparate alſo, and to recal the dogs which have gone aſtray after falſe game. The huntſman ſhould always accompany his dogs, and encourage, but not preſs them too hard. He ſhould aſſiſt them in detecting all the arts of eſcape uſed by the ſtag, for this animal has remarkable addreſs in deceiving the dogs. With this view he often returns twice

or

or thrice upon his former ſteps; he endeavours to raiſe hinds or younger ſtags to accompany him, and to draw off the dogs from the object of their purſuit: he then flies with redoubled ſpeed, or ſprings off at ſide, lies down on his belly, and conceals himſelf. In this caſe, when the dogs have loſt his foot, the huntſmen, by going backwards and forwards, aſſiſt them in recovering it. But, if they cannot find it, they ſuppoſe that he is reſting within the circuit they have made, and go in queſt of him. But, if they are ſtill unable to diſcover him, there is no other method left, but, from viewing the country, to conjecture where he may have taken refuge, and repair to the place. As ſoon as they have recovered his foot, and put the dogs upon the track, they purſue with more advantage, becauſe they perceive that the ſtag is fatigued. Their ardour augments in proportion to his feebleneſs; and their ſcent grows more diſtinct as the animal grows warm. Hence they redouble their cries and their ſpeed; and though the ſtag practiſes ſtill more arts of eſcape than formerly, as his ſwiftneſs is diminiſhed, his arts and doubling become gradually leſs effectual. He has now no other reſource but to fly from the earth which he treads, and get into the water, in order to cut off the ſcent from the dogs. The huntſmen go round theſe waters, and again put the dogs on the track of his foot. The ſtag, after taking to the water, is incapable of running far, and is ſoon at bay. But he ſtill attempts to defend his life, and often wounds the dogs, and even the huntſmen when too forward, by blows with his horns, till one of them cuts his hams to make him fall, and then puts an end to his life by a blow of a hanger. They now celebrate the death of the ſtag by a flouriſh of their horns; the dogs are allowed to trample upon him, and at laſt partake richly the reward of their victory.

STAG-EVIL IN A HORSE, a diſtemper which is a kind of palſy in the jaws, he being ſometimes ſeized with ſuch a ſtiffneſs in the neck and jaws that he cannot move them, but turns up the white of his eyes, and is ſeized with a palpitation of the heart and beating of the flanks at uncertain intervals, which diſeaſe frequently proves mortal if it ſpreads all over the body.

It chiefly proceeds from the horſe's being expoſed to cold after a great heat.

The firſt remedy is to bleed plentifully, unleſs the horſe be old, low in fleſh, or lately taken from ſome hard duty, when you muſt not take away too much of his blood. After bleeding give the following ball: take of aſſa-fœtida, half an ounce; caſtor powdered, two drachms; valerian root powdered, one ounce: make the whole into a ball, with honey and oil of amber.

This ball may be given twice a day at firſt, and afterwards once, waſhing it down with a decoction of valerian, ſweetened with liquorice or honey.

Care muſt alſo be taken to keep the body open with laxative purges, and emollient clyſters. And after this method has been continued for eight or ten days, the following balls ſhould be given, and waſhed down with the valerian decoction: Take of cinnabar of antimony, ſix drachms; of aſſa-fœtida, half an ounce; of birthwort root, myrrh and bay-berries, of each two drachms: make the whole into a ball with treacle and oil of amber.

By purſuing this method the horſe, if he ſtands the firſt ſhock of the diſeaſe, will, in all probability, recover, unleſs the diſtemper proceeds from bots in the ſtomach, which is often the caſe, when mercurial medicines, laid down in the article bots and worms, are to be uſed; after which the balls may be continued till the convulſions are removed.

It will alſo be neceſſary to chafe and rub the ſeveral parts that are contracted; and alſo to rub into the cheeks, temples, neck, ſhoulders, ſpines of the back and loins, the following liniment: Take of nerve and marſhmallow ointment, of each four ounces, and oil of amber, two ounces: make the whole into a liniment, with a ſufficient quantity of camphorated ſpirit of wine.

In this terrible diſtemper the jaws are ſometimes ſo faſt locked, that medicines cannot be given by the mouth, and then they muſt be given by way of clyſter; for the method too often practiſed, of forcing the jaws open, increaſes the ſymptoms, by putting the creature into the greateſt agony, and therefore ſhould not be attempted. The following infuſion may be given for this purpoſe: take of rue, penny-royal, and chamomile flowers, of each a handful; of valerian roots two ounces; boil theſe in five pints of water till one pint is waſted; ſtrain the liquor from the ingredients, diſſolve in it an ounce of aſſa-fœtida, and add four ounces of common oil. This clyſter muſt be given once a day.

But as the horſe, while he continues in this melancholy condition, cannot feed, he muſt be ſupported by nouriſhing clyſters, made of milk, pottage, broths, and the like, given to the quantity of three or four quarts a-day; by which means the creature will be ſupported till the diſtemper abates, ſo far as to be able to eat his food.

It has alſo been obſerved, that the ſtiffneſs of the jaws has continued, even after the convulſions have been removed, in which caſe the following medicines ſhould be given: Take of MATTHEWS's pill and aſſa-fœtida, of each one ounce; make the whole into a ball.

This ball will generally be ſufficient to remove the ſtiffneſs: but if not, it muſt be repeated the following day, and the nervous decoctions recommended above, continued.

It is very common to make rowels in this diſeaſe; but they are generally unſucceſsful, and often mortify: ſo that if they are applied at all, they ſhould be made under the jaws and in the breaſt.

Mr. LAWRENCE ſpeaks of the ſtag-evil, and locked-jaw; as follows: This ſtag-evil, tetanus, or cramp, is ſometimes ſo univerſal and laſting, that perhaps it ought to be deemed idiopathic convulſion in horſes. As to the locked-jaw, or tetanus triſmus, it is a ſymptom, or affection ariſing from ſympathy, or conſent of parts, generally with a wounded tendon. A year or two ſince, a horſe-dealer, driving his chaiſe near town, his horſe picked up a nail, which penetrated ſo deep,

deep, that he was inſtantly ſeized with the locked-jaw, or in the common phraſe, became jaw-ſet. I believe the horſe died in a day or two.

Gibson ſpeaks as follows of the ſtag-evil. He has known horſes clear their racks in the night, and in the morning drink their water, and eat their uſual allowance of corn; and yet, in leſs than half an hour, have had their mouths cloſe ſhut up, and their whole bodies convulſed.

"As ſoon as a horſe is ſeized in this manner, his head is raiſed with his noſe towards his rack, his ears pricked up, and his tail cocked, looking with an eagerneſs as an hungry horſe, when hay is put down to him, or like a high-ſpirited horſe when he is put upon his mettle—his neck grows ſtiff, cramped, and almoſt immoveable; and if he lives in this condition a few days, knots and ganglions will ariſe in the tendinous parts; all the muſcles will be cramped, legs ſtiff, wide and ſtraddling, as if the horſe were nailed to the pavement; ſkin drawn tight in all parts, eyes fixed, ſcarce any ability to walk; ſnorts and ſneezes often, which ſymptom increaſes till he drops dead, which happens in a few days."

Gibson ſuppoſed the ſtag-evil to proceed frequently from worms, or ulcerations and impoſthumes in the midriff, or other principal bowels. Of the methods of cure, the external chiefly remains to be treated. Bleed plentifully or otherwiſe, according to circumſtances. Rub into the cheeks, temples, neck, ſhoulders, ſpines of the back and loins, or wherever is the greateſt contraction, the following liniment. Nerve ointment, four ounces; ointment of marſhmallows, ſix ounces; muſtard-ſeed ground, and *Flanders* oil of bays, each two ounces; oil of amber, two ounces; make the liniment thin with camphorated ſpirits.

Or, as a cheap liniment, muſtard-ſeed freſh ground, with camphorated ſpirits.

To perform the friction ſufficiently and with effect, will require the exertions of two men, for unleſs there be almoſt continual rubbing in a dangerous caſe, the contraction and inſenſibility increaſes, and many horſes have been ſo loſt.

Other forms of liniment. Ethereal oil of turpentine (or the common) four ounces; nerve ointment, and oil of bay, each two ounces; camphor rubbed fine, one ounce; rectified oil of amber, three ounces; tincture of cantharides, one ounce. Or. Soap liniment, four ounces; ſpirit of ſal ammoniac and tincture of opium, each one ounce. Mix.

Warm bath, or ſweating in a hot-houſe, well clothed. No violence muſt be uſed to force open the mouth, which will exaſperate all the ſymptoms, perhaps induce delirium. Nutritive clyſters. Laxative and cephalic ditto. In a very bad caſe, Gibson had great ſucceſs with crude opium, injected half an ounce in a clyſter, which he afterwards followed up (the mouth opening a little) with a ball of an ounce of Matthews's pill, and two drachms of aſſa-fœtida, waſhed down with warm gruel. I ſhould ſuppoſe camphor and nitre in a clyſter, probable to be attended with good effects in this caſe, and would recommend repeated trials of it. Should they be joined with the opium, or laudanum, or warm ſpiced wine? The intent is to ſtimulate, to excite warmth and ſenſibility, and I have been informed that the diſcharge of cold water upon a locked-jaw has been tried, but with very ill ſucceſs. The above cure was completed with ſeveral mild aloetic purges, in which were joined aſſafœtida, ammoniacum, and ſaffron; Gibson remarking, that the common plantation aloe was more apt to create, than cure nervous diſorders.

STAGGARD, (with Hunters) a young male deer aged but four years.

STAGGERS, } In Horses, a diſeaſe, being a gid-
STAVERS, } dineſs in the brain, which when it ſeizes the beaſt often proceeds to madneſs.

It owes its origin to corrupt blood, or groſs and ill humours which oppreſs the brain; ſometimes from his being too ſoon turned out to graſs before he is cold, or by hard riding, or hard labour.

The ſigns of it are dimneſs of ſight, reeling or ſtaggering, and his beating his head againſt the wall, by reaſon of violent pain, and thruſting it into his litter: he will likewiſe forſake his meat, and have wateriſh eyes.

For the cure of this diſtemper there are various preſcriptions, ſome of which are, firſt to bleed the horſe, then to diſſolve the quantity of a hazle-nut of ſweet butter in a ſaucer full of wine; then take lint, or fine flax, dip it in it and ſtop his ears with it, and ſtitch them for twelve hours.

Some boil an ounce and a half of bitter almonds, two drachms of an ox-gall, half a pennyworth of black hellebore, made into powder, grains of caſtoreum, vinegar, and varniſh, of each five drachms, which they boil and ſtrain, which put into his ears as before.

Soleysel directs to bleed the horſe in the flanks and plate veins of the thighs, and then to give him a clyſter of two quarts of emetic wine, lukewarm, with four ounces of the ointment of populeum, and afterwards to let him repoſe a little; and when he has voided that clyſter about an hour, give him the following doſe:

Take two ounces of the ſcoriæ of the liver of antimony, finely powdered, in five pints of beer, after it has had five or ſix warms over the fire, then add four ounces of unguentum roſatum, and inject this lukewarm.

Repeat this often, rubbing his legs ſtrongly with wiſps of ſtraw moiſtened with warm water, to make a revulſion: feed him with bran and white bread, and walk him from time to time in a temperate place.

But if notwithſtanding theſe applications the diſeaſe does ſtill continue, then give him an ounce of *Venice* treacle, diſſolved in a quart of ſome cordial waters, and inject the following clyſter lukewarm:

Diſſolve two ounces of ſal polycreſtum and *Venice* treacle in two quarts of the decoction of the ſoftening herbs, and with a quarter of a pound of the oil of rue, make a clyſter. Or,

Take the ſeeds of creſty, poppies, ſmallage, parſley, dill, pepper, and ſaffron, of each two drachms, pound them all to a fine powder, and put them into two quarts of water, boiling hot from the fire, and let them infuſe together for three hours; ſtrain it and give him one quart; ſprinkle his hay with water, and the

next day give him another quart faſting; let him have no cold water for four or five days, only white water, unleſs ſometimes a maſh. Or,

Make a ſmall tough oaken or aſhen ſtick ſharp, and make a notch at one end of it, like a fork, to prevent it from running too far into the horſe's head: put it up his noſtril, jobbing it up and down to the top of his head, which will ſet him to bleeding freely.

Then in the morning faſting give him a drink well brewed together, compounded of an ounce of temeric, and the ſame quantity of anniſeeds, in a quart of ſtrong beer or ale, a pint of verjuice, and a quarter of a pint of brandy, and ſtop his ears with aqua vitæ and herbage, well beaten together; put of this an equal quantity into each ear, and ſtop flax or hurds upon it to keep it down, then ſtitch up his ears for twenty-four hours.

The next day bleed him in the neck, and give him his blood with a handful of ſalt in it, ſtirring it well together, to prevent it from clodding; four or five hours after give him ſweet hay, and warm water and bran at night.

Then tie up one of his fore-legs, and ſtrew ſtore of litter under him, and leave him to take his reſt, and he will either recover in a day or two, or die.

The vinegar will make him ſtale, and the aqua vitæ cauſe him to ſleep; if he does not come to his ſtomach, give him honey, white wine, and a cordial.

In inflammation of the brain, and delirium, copious and frequent bleedings, clyſters, and the uſe of nitre, to the amount of from ſix to eight ounces in a day, are the only dependance. BLUNDEVIL ſays he has ſeen a mad horſe bite the fleſh from his own ſhoulders.

GIBSON deſcribes the ſymptom of a horſe rearing up, and falling back, on the approach of any one to handle his head, referring the cauſe to water in the ventricle, which from the erect poſition of the head, flowing backward, cauſes a ſudden preſſure and weight on the cerebellum and origin of the nerves. He ſays young horſes are moſt liable.

In general, the epilepſy is rather to be referred to a weak cauſe, and to inanition, than to plethora. The convulſions do not always proceed originally from the head, but from aſſociation with ſome other affected part. The cauſes, immediate or remote, may be conſtitutional debility, exceſſive exertion, labour unaccuſtomed, or too long continued without the neceſſary remiſſions. The common ſigns are, reeling and ſtaggering, eyes fixed, inſenſibility to every thing, turning round, ſudden falling down, convulſions ſucceeded by ſtillneſs, inſenſibility as if death were approaching, legs ſtretched out ſtiff and immoveable, trembling and working at the flanks; horſes will ſometimes continue in this ſtate for ſeveral hours, and at laſt ariſe of themſelves: a dry white foam in the mouth is generally a favourable ſymptom, indicating the termination of the fit.

The cure: bleeding according to ſtrength; but here the utmoſt precaution is neceſſary, for as in the apoplexy from plethora, and a ſuperabundance of the material of life, too free a uſe of the lancet can ſcarce be made, ſo in caſes of exhauſtion, even a ſmall treſpaſs on the quantity of blood, is not repaired for a great length of time. Body to be kept ſoluble by clyſters. The following ball and drink, to be given once or twice a day at firſt; afterwards, once in two or three days, until the ceſſation of the diſeaſe. Aſſafœtida, half an ounce; *Ruſſia* caſtor, pounded, and *Venice* turpentine, each two drachms; diapente, one ounce; make the ball with honey and oil of amber.

For the drink to waſh down the ball. Take pennyroyal and miſletoe, each a large handful; valerian root, one ounce; liquorice, half an ounce; ſaffron, two drachms; infuſe in a quart of boiling water two hours, pour off. Or, the following may be uſed, if neceſſary, to warm and invigorate the blood. Caſtor and aſſafœtida, of each half an ounce; rue and pennyroyal, of each a large handful; filings of iron tied up in a bag, half a pound; infuſe in two quarts of boiling water, and keep the infuſion cloſe covered by itſelf. Then take *Virginia* ſnakeweed, contrayerva, and valerian, each half an ounce; ſaffron and cochineal, each two drachms; infuſe in a quart of white wine (or fine ſound old ale) in the ſun, or by the fire ſide, covered, twenty-four hours. Mix a pint of the firſt infuſion and a gill of the tincture for a doſe, once a day, or oftener, if required.

The above forms are from GIBSON, the firſt who preſcribed medicines of this claſs for horſes in the ſtaggers, which were afterwards highly approved by Dr. BRACKEN, who only objected to the expence. Myrrh and ammoniacum are alſo recommended by GIBSON.

A drink againſt ſtaggers, from BARTLET. Wild valerian root, bruiſed, four ounces; boil in three quarts of water to two, diſſolve in it eight ounces of nitre, and add one pint of antimonial wine or beer. Doſe, one pint or more, every ſix hours, for three days. Nervous ball, from the ſame. Cinnabar of antimony, ſix drachms; aſſafœtida, half an ounce; ariſtolochia, myrrh, and bay-berries, two drachms each; ball with treacle and oil of amber.

Cheap nervous drink, from GIBSON. Rue, pennyroyal, and chamomile, each a handful; aſſafœtida, one ounce; boil in a quart of forge-water, letting the decoction ſtand on the ingredients. Give two or three hornfuls every four hours.

A STALE. A living fowl put in any place to allure other fowls, to a place where they may be taken; for want of theſe, a lark or any other bird may be ſhot, his entrails taken out and dried in an oven in his feathers, with a ſtick thruſt through him, to keep in a convenient poſture, which may ſerve as well as a live one.

STALING, OR DUNGING, a ſuppreſſion or ſtoppage of theſe may happen to a horſe ſeveral ways; ſometimes by being too high kept and having too little exerciſe, ſometimes by being travelled ſuddenly after he has been taken up from graſs, before his body has been emptied of it.

The ſign of knowing this is, that he will lie down and tumble about by reaſon of the extremity of pain, juſt as if he were troubled with bots.

In ſuch caſe to cauſe a horſe to ſtale, do as follows:

Put a quart of ſtrong ale into a two-quart pot, with as many radiſh roots, waſhed, ſlit, and bruiſed, as will

fill up the pot, ſtop the pot cloſe, and let it ſtand twenty-four hours, then ſtrain out the liquor, ſqueezing the roots very hard, and give it the horſe faſting; then ride him a little up and down, ſet him up warm, and he will quickly ſtale.

Take three or four ſpoonfuls of burdock ſeeds, bruiſe them, and put them into a quart of beer, and a good piece of butter, heat it lukewarm, and give it the horſe.

Kill a ſufficient number of bees, dry them well, and reduce them to powder, and put them into a pint of white wine or ale, and give him about an ounce of them at a time; this will open the paſſages of the primary veins, by his having taken two or three doſes, and make him ſtale freely.

STALING OF BLOOD; a horſe ſometimes happens in the midſt of ſummer to ſtale pure blood, by reaſon of immoderate exerciſe; if a veſſel or membrane be broken, it is mortal; but if it proceeds only from the heat of the kidnies, he may be eaſily cured; for in this caſe, all the urine that is tinged like blood is not blood, for a ſmall flux of blood will give a red tincture to a great quantity of urine.

For the cure: firſt bleed the horſe, then give him every morning three pints of the infuſion of crocus metallorum in white wine, for ſix or ſeven days ſucceſſively, keeping him bridled four hours before and after it; this will both cleanſe his bladder, and heal the part affected.

If the diſtemper be attended with heat, and beating of the flanks, give him a cooling clyſter; bleed him again, and give two ounces of ſal polycreſtum, diſſolved in three pints of emetic wine, which is to be got ready to be given him in the morning.

If the ſal polycreſtum takes away his appetite, or the emetic wine does not effect the cure, give him the following medicines:

Take two ounces of *Venice* treacle, or (for want of that) of diateſſorum, with common honey and fine ſugar, of each four ounces; incorporate all theſe well together in a mortar, then add anniſeeds, coriander-ſeeds, and liquorice powder, of each two ounces.

Mingle the maſs well, and give it the horſe, diſſolved in a quart of claret, keeping him bridled for three hours, both before and after; and the next day bleed him.

On the third day inject the following clyſter: take two ounces of the ſcoriæ, or droſs, of the liver of antimony, in fine powder; boil it in five pints of cow's milk whey, and as ſoon as the liquor riſes in great bubbles, take it from the fire, and add to it a quarter of a pound of olive oil; give this clyſter lukewarm.

The virtue of theſe medicines have been experienced; but if the diſeaſe ſhould ſtill continue, you muſt again repeat the whole courſe.

STALING BLOOD: this diſtemper is often cauſed by a ſtrain; for the cure, bleed the horſe, and give him ſome of the hyſteric liquor, about a large ſpoonful of ſtrong beer warm, and it will bring him into order.

STALLION is an ungelt horſe, deſigned for the covering of mares, in order to propagate the ſpecies; and when his ſtones are taken away, and he is gelt, he is called a gelding.

Now in the chuſing ſtone-horſes, or ſtallions for mares, you ought to take great care that they neither have moon-eyes, watery-eyes, blood-ſhotten eyes, ſplents, ſpavins, curbs, nor, if poſſible, any natural imperfection of any kind whatſoever; for if they have, the colts will take them hereditarily from their parents.

But let them be the beſt, ableſt, higheſt ſpirited, faireſt coloured, and fineſt ſhaped; and a perſon ſhould inform himſelf of all natural defects in them, of which none are free.

As for his age, he ought not to be younger, to cover a mare, than four years old, from which time forward he will beget colts till twenty.

Let the ſtallion be ſo high fed, as to be full of luſt and vigour, and then brought to the place where the mares are; take off his hinder ſhoes, and let him cover a mare in hand twice or thrice, to keep him ſober; then pull off his bridle, and turn him looſe to the reſt of the mares, which muſt be in a convenient cloſe, with ſtrong fences and good food, and there leave him till he has covered them all, ſo that they will take horſe no more; by which time his courage will be pretty well cooled.

Ten or twelve mares are enough for one horſe in the ſame year: it will alſo be neceſſary to have ſome little ſhed or hovel in the field, to which he may retreat to defend him from the rain, ſun, and wind, which are very weakening to a horſe: let there be likewiſe a rack and manger to feed him in, during his covering-time, and it would not be amiſs if one were to watch him during that time for fear of any accident, and the better to know how often he covers each mare.

When he has done his duty, take him away from the mares, and remove them into ſome freſh paſture.

Take notice, that when you would have mares covered, either in hand or otherwiſe, that both the ſtallion and mare have the ſame feeding, *viz.* if the horſe be at hay and oats, which are commonly called hard meats, the mare ſhould be alſo at hard meat, otherwiſe ſhe will not be ſo fit to hold.

In the like manner, if the ſtallion be at graſs, you muſt alſo put the mare to graſs.

Thoſe mares which are in middling caſe, conceive the moſt eaſily; whereas thoſe that are very fat hold with great difficulty; thoſe of them that are hot and in ſeaſon, retain a great deal better; their heat exciting the ſtallion, who, on his part, performs the action with great vigour and ardour.

And when you cover a mare in hand, in order that ſhe may the more certainly hold, let the ſtallion and the mare be ſo placed in the ſtable, that they may ſee each other, keeping them ſo for ſome time, which will animate them both, and then they will hardly fail to generate.

For the ordering of a ſtallion, ſome give the following inſtructions:

Feed the ſtallion for three months at leaſt, before he is to cover, with good oats, peaſe, or beans, or with coarſe bread and a little hay, but a good deal of wheat

wheat ſtraw; carrying him twice a day to water, walking him up and down for an hour after he has drank, but without making him ſweat.

If the ſtallion be not thus brought into wind before he covers, he will be in danger of becoming purſey, and broken winded; and if he be not well fed, he will not be able to perform his taſk, or at beſt the colts would be but pitiful and weak ones; and though you ſhould take great care to nouriſh him, yet you will take him in again very weak.

If you put him to many mares, he will not ſerve you ſo long, but his main and tail will fall away by reaſon of poverty, and it will be a difficult matter to bring him to a good condition of body againſt the year following.

He ought to have mares according to his ſtrength, as twelve or fifteen, or at moſt not above twenty.

As to foreign horſes. The *Spaniſh* horſe, or *Spaniſh* jennet, is a creature of great fire, of a middle ſtature, and generally well made in his head, body, and legs; and though his buttocks are ſomewhat long, yet they are ſtrong and well ſhaped.

After one of theſe horſes has been well taught, there is none make a better ſhow upon the parade; but he is not a horſe that will hold long in his full ſtrength, becauſe he hath rather too much ſpirit; for about half a mile, there is not a ſwifter creature in a race, but then his ſtrength fails.

A *Spaniſh* horſe is not generally thought fit for action, till he is ſix years old, for they are not till that time grown to their full perfection or beauty, and their too great fire or mettle is not till then abated ſufficient to render him ſerviceable.

The laſt thing that is complete in *Spaniſh* horſes, is the creſt; the horſes of this breed are naturally inclined to bound and to make faults, raiſing all four feet at once from the ground; but their limbs being weak and ſmall, they are very ſubject to be ſinew-ſtrained, or otherwiſe lamed in a ſhort time after they are fit for ſervice.

No kind of horſe has ſuch open noſtrils, or ſnorts more in all his goings, than the *Spaniſh* horſe; his trot is ſomewhat long, irregular or waving, for which reaſon ſome jockies have choſe to bring them to the pace or amble.

The *German* horſes. Theſe horſes are for the moſt part very tall, and large of body, not very beautiful in make, but ſeem to be of great ſtrength, and being brought into the manage, perform ſome of the moſt difficult leſſons with agility enough: they gallop very ſlow or heavy, and trot very high; but they are ſtrong, and better for the draft or burden, than the manage.

The *Hungarian* horſes. Theſe horſes are generally hook-noſed, and have thick heads, large eyes, broad jaws, but narrow noſtrils; their manes are rough and thick, commonly reaching near the ground; their tails, in like manner, are buſhy and long; for the moſt part of lean and thin bodies, and weak paſterns: but although ſome part of them are not to be liked, yet the deformities are generally ſo well put together, that, taken all together, the horſes are agreeable enough.

They are of a tolerable good courage, and will endure labour and fatigue, and for that reaſon are ſerviceable in war.

The *Swediſh* horſes. Theſe are of ſmall ſtature, their ſhape indifferent, and are of but ſmall ſervice.

The horſes natural to *Sweden*, are, for the moſt part, either white, dun, or pied, and wall-eyed; ſo that unleſs they are improved by other breeds, they are not to be ranked with them that are of good eſteem.

The *Poliſh* horſes. Theſe are much like the *Daniſh* horſes, and are generally about the ſize of the *Spaniſh* jennet, are of a middle ſtature, but their limbs are much better knit together, and are of a much ſtronger make than the *Spaniſh* ones.

Theſe horſes are in many reſpects like our natural *Engliſh* horſes, except that their heads are ſomewhat ſlenderer, like the *Iriſh* hobby; but their necks and creſts are raiſed upright, and very ſtrong; their ears are very ſhort and ſmall, and their backs capable of bearing any weight; their chines are broad, and their hoofs are judged to be as good as thoſe of any horſe in the world.

They are very good for a journey, and will endure long ones, with more eaſe than any other horſe.

Flanders horſes. Theſe differ in ſhape but little from the *German* breed, they are tall in ſtature, have ſhort and thick heads, bodies deep and long, buttocks round and flat, their legs thick and rough.

Theſe horſes and the mares of the ſame kind, are eſteemed chiefly for the draft in which, for ſtatelineſs, they excel moſt horſes in *Europe;* but are to be rejected for the ſaddle, being both ſluggiſh and uneaſy.

The *Flanders* horſe and mare both have a hard trot, but are much uſed in the harneſs with us in *England*.

The *Neapolitan* horſe. This horſe is highly eſteemed for his ſtrength and courage, which, together with his gentle diſpoſitions, make him more valued.

His limbs are ſtrong, and well knit together; his pace is lofty, and he is very docile for the performance of any exerciſe; but a nice eye may diſcover that his legs are ſomething too ſmall, which ſeems to be his only imperfection.

He may be known by his head, which is long, lean, and ſlender, bending from the eyes to the noſtrils, like a hawk's beak; he alſo has a very full eye, and a ſharp ear.

The *Sardinian* horſes. Theſe, and thoſe of *Corſica*, very much reſemble the *Neapolitan*, but are ſomewhat ſhorter bodied, and of a more fiery diſpoſition; but by good management may be brought to very good diſcipline.

Turkiſh horſes. Theſe horſes are originally natives of *Greece* and bear an extraordinary price with us, partly becauſe of their extraordinary beauty, and partly becauſe of the great expence of bringing them over.

Theſe *Turkiſh* horſes have fine heads, ſomewhat like *Barbary* ones, beautiful fore hands, and ſtraight limbs, rather ſmall than large, are of a moſt delicate ſhape, their pace is genteel and graceful, and beſides they are horſes of good ſpirit.

Their coats are ſmooth and ſhort, and their hoofs

long and narrow, which is a ſign of ſwiftneſs; in a word, they are horſes of great beauty, courage and ſpeed.

Their colour is, for the moſt part, grey or flea-bitten, though there are ſome of a bright bay colour; but moſt of theſe we have now in *England* are grey.

Engliſh horſes. The true bred *Engliſh* horſe, has been accounted a creature of great ſtrength and ſpirit, and he has been, by ſome authors repreſented as of a very large ſize; but at preſent we have hardly any that can be called true bred *Engliſh* horſes, or that can be ſaid to be the offspring of an horſe and mare, that were both lineally deſcended from the original race of this country: unleſs we may account thoſe horſes to be ſuch that are bred wild in ſome foreſts, and among mountains.

Among them, perhaps the mares and horſes were both of the firſt *Engliſh* race, without mixture: however, it is not certain, but ſome horſes of foreign countries, of which many have been, and ſtill are, frequently brought over, were turned into thoſe wild places, as convenient paſture, and have mixed with the natives of *Britain*.

However, ſeeing we cannot ſeek for *Engliſh* horſes any where elſe than in foreſts and wild places, we will ſuppoſe thoſe to be the true bred *Engliſh* race of horſes.

Theſe we find to anſwer the character, ſo far as relates to ſtrength and good ſpirit; but they are not large, though very hardy, and will always keep good fleſh on their backs, and thrive where other horſes can ſcarce live.

It is not improbable but that the race might have been much larger than they now are, becauſe in the firſt time they were at liberty to range any where, and take their pleaſure where it pleaſed them beſt, and all grounds then lay open, or elſe there were but very few incloſures, in compariſon to what there are now. And when they had that plentiful ſhare of food, we may naturally imagine that their bodies were much larger than they are at preſent; for it is a certain rule, that the leſs ſhare of nouriſhment any creature has during the time of its growth, ſo much the ſmaller will he be in ſtature.

But there are now very few of this wild ſort in uſe, in compariſon to what there were a hundred and fifty, or two hundred years ago; and thoſe that are now taken up, are not eaſily tamed: but when they are once diſciplined, they will endure more labour than any horſes in the known part of the world.

Iriſh hobbies. Theſe are alſo of a wild breed, and are generally well made, much after the manner of the *Engliſh* wild horſes; they have fine heads, ſtrong necks, and well turned bodies, quick eyes, good limbs, and other good qualities ſufficient to recommend them; are briſk and courageous, and very ſure footed: but both theſe are ſubject to ſtart, which, I ſuppoſe, proceeds from their wild way of living, where they have not had the opportunity of knowing or ſeeing any thing but trees or buſhes, and therefore every thing elſe ſeems ſtrange and ſhocking to them.

But if they happen to be young, when taken from the foreſt, or other wild paſtures, this may probably be overcome; but if they are not ſo, then I judge it impoſſible ever to break them to it; for they having never known any thing but wild ſcenes, and been a long time habituated to them, every thing that differs from them will ſeem ſtrange, if not monſtrous, and will ſtrike them with fear and horror, never to be corrected.

We are informed that theſe *Iriſh* horſes are ſo wild, that the only way of taking them, is by aſſembling a great number of people together, and driving the whole ſtud, horſes and mares, colts and fillies, into a bog, where they caſt halters over the heads of thoſe they think fit for ſervice, letting the others run again into the country.

Our *Engliſh* horſes in foreſts are not taken with leſs labour, for many artful devices muſt be uſed, and a great deal of labour too is required in the taking them.

And after all, great care muſt be taken that they have moſt gentle uſage, to make them as familiar as poſſible and at the firſt, not letting them have any thing to eat, but what we feed them with out of the hand, till they are grown very well acquainted with their keepers.

It is not to be expected that they will all of a ſudden quit their wildneſs, but thus feeding them, and keeping them awake for ſome time, will tame them by degrees.

It ought to be obſerved, both in taming or teaching of horſes, that they are to be uſed with tenderneſs, rather than roughneſs, and no paſſionate perſon ought to be concerned in their breaking or management; but a man that undertakes this buſineſs ought to be patient, and a maſter of reaſon; and for want of theſe qualifications being put in practice in the management of them, many a good horſe has been ſpoiled, having either been puſhed on by the paſſion of the rider to over-ſtrain themſelves, or elſe to ſtart and fly out of the way, at the leaſt touch of the whip or ſpur, and thereby endanger the rider; or to hate the rider, and take every opportunity of doing him a miſchief, either in mounting, or when he is on his back, or diſmounting.

There are many inſtances to prove that horſes have a memory, and will reſent injuries that have been offered them. I have known ſome horſes which would not ſtand ſtill to be ſhod by a farrier, of whom they had before received ſome violent uſage; when at the ſame time they would freely ſuffer themſelves to be ſhod by ſtrangers. Others have been ſo provoked at the ſight of a farrier, with a leather apron, that they have endeavoured all they could to do him a miſchief, either by biting or kicking. Nor are we without the knowledge of melancholy accidents that have happened to grooms, who have uſed their horſes with too much ſeverity.

I ſhall conclude what has been ſaid of foreign horſes, the natural bred *Engliſh* horſes, and *Iriſh* hobbies, with ſaying, that when we ſee a fine horſe now adays which was foaled in *England*, and bred of a mare and horſe that was likewiſe bred in the ſame place, we cannot be certain that ſuch a horſe is of a true *Engliſh* breed, unleſs we could know further of his generation;

tion; his grandfire or grandam might, perhaps, be both foreigners.

But we ſay thus much of horſes which have been foaled or bred in *England*, though they are the offspring of foreigners, they will be ſtronger, and have a better ſpirit, than if the ſame had been abroad; becauſe the food in *England* for horſes is more hearty and nouriſhing than in any other country in *Europe*, eſpecially our graſs, which is the principal food for horſes, is in greater plenty in *Britain* and *Ireland*, than in any other *European* nation beſides.

For which reaſon in the hotter countries, they are forced, for want of graſs, to cultivate clover, ſaintfoin, *&c.* and feed their horſes with theſe, and chopt ſtraw and corn; but chopt ſtraw is only for them when they are grown fit for uſe, they having only during their firſt two or three years, clover, ſaintfoin, *&c.*

Of the croſs ſtrains of horſes, It is well known, that in *Britain* have been bred horſes of all kinds before mentioned, which have not only been as good as thoſe bred in their reſpective countries, but have been allowed to exceed them in ſtrength and beauty.

But this ſhould be remembered, that of every kind of horſes mentioned before, it has been thought proper in our trading, ſporting, and warlike country, to compoſe out of the variety, ſuch horſes as may prove uſeful to every ſort of buſineſs.

We have ſome for carrying burdens, ſome for the road, ſome for hunting, others for ambling, and others for the coach and other carriages; ſome likewiſe for racing, and ſome for the manage, to be trained either for the war, or diverſion of great men.

As to the mixing of breeds, ſome are of opinion, that ſuch horſes deſigned to be trained for the war, ſhould be bred from a *Neapolitan* ſtallion, and an *Engliſh* mare, or of a *Turkiſh* ſtallion, and an *Engliſh* mare.

The next breed to be deſired, is between a *Turkiſh* ſtallion, and a *Neapolitan* mare, which produce a fine race of a great value.

Some ſay that ſtallions of *Corſica* and *Sardinia*, coupled with *Turkiſh* mares, will produce a fine breed; and that the *Spaniſh* jennet, and *Flanders* mare, produce an excellent offspring.

But this we are certain of, that any of the aforeſaid kinds of horſes covering true born *Engliſh* mares, will beget better colts or fillies, than if they had coupled with their own race, in their own country.

And there is a good reaſon for this, becauſe no race of horſes in the world have ſuch hearty feedings as thoſe of *Britain*, where liberty renders every farmer capable of cultivating his lands, and providing plentifully for himſelf, and all about him.

This cauſes all of our breed to be ſtrong and hearty, and when the mare is ſo, the race that proceeds from her muſt be ſo much better, as ſhe is ſtronger than the mares that are fed in other countries where the provender is more coarſe, and leſs nouriſhing.

As to the breeding of horſes for racing, ſome gentlemen chuſe to put a *Barbary* horſe to an *Engliſh* mare; others will have both the ſires and dam to be *Barbs*; others again are for coupling the *Barbary* horſe with the *Turkiſh* mare, and indeed any of theſe couplings produce horſes of great ſpeed.

The croſs ſtrains of horſes we now have, are not ſo be numbered; but if we were to trace the breeds of the beſt running horſes, we ſhould find them to proceed from ſuch mixtures.

The many horſe races, ſo frequently the diverſion of our *Engliſh* nobility and gentry, are chiefly performed by ſuch mixtures in breed.

For though one horſe truly bred of one particular country, may be ſwifter than another, yet if he wants ſtrength he will be a loſer in the courſe, and will fall from his ſpeed if the courſe happens to be wet and heavy; but the coupling before-mentioned, when brought together by a man of right judgment that way, may produce ſomething admirable at *Newmarket*, &c.

As to hunting-horſes, which are chiefly the delight of the *Engliſh* gentry, theſe ought to be nimble, full of courage, and ſtrong.

The original of the beſt we know, have proceeded from a croſs ſtrain, between the *Turkiſh* ſtallion, and *Engliſh* mare; and there is great reaſon for this opinion, ſince we are already certain of the ſtrength of our *Engliſh* bred mares, and the good courage and ſwiftneſs of the *Turkiſh* and *Barbary* horſes.

But every one who breeds ſuch horſes, has his peculiar fancy; they employ ſome favourite ſtallion, or favourite mare to raiſe a breed from, and are different in opinion about this: one of any particular breed will not be ſo good as another, although the ſame care ſhould be taken in the coupling the ſire and the dam.

All that can be ſaid is, that a ſtallion of vigour and ſpeed ought to be choſen, and a mare of a ſtrong and healthful body; and from ſuch coupling may be expected well bred horſes of ſtrength and courage.

The pad or ambling horſe, is chiefly deſired for ladies; to produce ſuch, let the ſire be a *Turk*, and the dam a *Scotch* poney, or *Iriſh* hobby, and theſe between them will produce a race that will be natural pacers. And again, a *Turkiſh* ſire, and an *Engliſh* mare of a ſmall ſize, will naturally produce for the pace or amble.

Then as for the burthen or pack, the *German* horſe will be a good ſire for a *Flanders* or *Flemiſh* dam; theſe will produce a breed ſtrong and tall, fit either for carrying great weights, or war.

If one of this breed happens to be trained for the army, his rider, with his accoutrements, will hardly be leſs than thirty ſtone.

The *Northamptonſhire* breed of horſes are generally coveted for this uſe, the original of which came from a mixture of the kind before mentioned.

Theſe are alſo good for the draught, either in the coach or cart, and many have been of the opinion, that the mares of this breed are as ſerviceable in ſtrength and action, as the horſes: and the ſtallions and mares of this croſs ſtrain are rather preferable to the original ſires or dams; being more habituated to the food of the country, or as one may ſay, naturalized to the *Engliſh* provender, than thoſe that came from their reſpective native countries.

The croſſing of ſtrains, or coupling one kind with another, has of late ſo much improved our breed in *England*, that we have them now of all ſorts, and for all

all uſes, in more perfection, than any other country in the world.

Some *Engliſh* authors have obſerved, that the beſt horſes are rather from the croſs-ſtrain; than immediately from the natural breed of any country, for our *Engliſh* mares mend the breed; they ſtrengthen the joints of the *Spaniſh* jennet, the ſlenderneſs of the limbs of the *Turk* or *Barb*, and the too long and rough hair about the paſtern of the *Spaniſh* breed.

In the latter caſe when the hairs are long upon the paſterns, it would be difficult for their keepers to preſerve them from the malanders or ſcratches, which the *Flanders* horſe or mare is frequently attacked with, unleſs that hair was ſinged or burnt off.

As for the age of a ſtallion; ſome adviſe to try the age and courage of a ſtallion, by taking up part of the ſkin, and if it return quickly to the body, and become ſmooth, it is a ſign of his vigour and youth; and, on the contrary, if it remains ſome time without returning to the part whence it was pulled, it is a ſign that the horſe is either old or infirm; but if on the contrary, he is fit for buſineſs.

Another way to try if a horſe be young or old, is to take the ſtern or tail next the buttock, between the finger and thumb, and preſſing that part hard, if they find the joint there bigger or more prominent than the joints of the tail (as big perhaps as a hazle nut, or thereabouts,) they conclude the horſe to be under ten years old; but if that joint be equal with the other joints in the tail, they ſuppoſe the horſe to be paſt that age.

Another way is, to examine the horſe's eyes, whether they be full; his body, whether or not it is in good condition; as alſo whether he has courage; if his coat be ſmooth, and if the hollow of his eyes be full; for if all theſe meet together, expert jockies conclude a horſe is young, and fit for generation. *See* AGE OF A HORSE, MARE, STALLION, STUD.

STALKING-HORSE; without which there is no getting to ſhoot at ſome fowl, by reaſon of their ſhyneſs; which ſtalking-horſe ſhould be ſome old jade, trained up for that purpoſe, who will gently, and as you would have him, walk up and down in the water which way you pleaſe, flodding and eating of the graſs that grows therein. *See* Plate XV. and ARTICLE TUNNEL-NET.

You muſt ſhelter yourſelf and gun behind his foreſhoulder, bending your body low by his ſide, and keeping his body full between you and the fowl; being within ſhot, take your level from before the forepart of the horſe, firing as it were between the horſe's neck and the water, which is much better than firing under his belly, being leſs perceivable.

But by reaſon of the trouble and time that a real ſtalking horſe will take up, to make fit for this purpoſe, you may make an artificial one, of ſome pieces of old canvas, ſhaped like a horſe, with his head bending downward as if grazing; it may be ſtuffed with any light matter, and painted of the colour of a horſe, of which the beſt is brown, and in the middle let it be fixed to a ſtaff, with a ſharp iron at the end to ſtick it into the ground as you ſee occaſion, ſtanding faſt while you take your level.

It muſt alſo be ſo portable, that you may with eaſe bear it with one hand, and move it ſo as it may ſeem to graze as you go.

It muſt neither be too low nor too high in ſtature, for the firſt will not hide your body, and the other will be apt to ſcare away the fowl.

You may, inſtead of this ſtalking-horſe, form out of canvas painted, an ox or cow; this change is very proper, after you have ſo ſcared the fowl with your ſtalking-horſe, that they begin to find out the deceit (as it frequently happens): then you may ſtalk with an ox or cow, till the horſe be forgotten, and by this method continue your ſport.

In low fenny grounds, the ſtalking with ſtags or red deer is very proper, where ſuch deer do uſually feed, and are more familiar with the fowl, and ſo feed nearer them than either the ox, horſe, or cow: which ſtalking ſtag, or deer, are formed out of canvas painted, with the natural horns of ſtags fixed thereon, and the colour ſhould be painted ſo lively, as that the fowl cannot diſcern the deceit, by which means you will come within a much nearer diſtance.

There are likewiſe other engines to ſtalk withal, ſuch as an artificial tree, buſh, or ſhrub, which may be made into ſmall wands, and with painted canvas made into the form of the body of a tree, as a willow, poplar, or ſuch trees as grow by rivers, and waterſides, which are the beſt.

If you ſtalk with a buſh or ſhrub, they muſt not be ſo tall as your tree, but much thicker; which may be made either of one entire buſh, or of divers buſhes interwoven one with another, either with ſmall withy-wands, cord or packthread, that may not be diſcerned: and let not your buſh exceed the height of a man, but be thicker than four or five inches, with a ſpike at the bottom to ſtick into the ground, whilſt you take your level.

If you deſign theſe artificial ſtalking engines for fowls that flock together, eſpecially water-fowl, they will ſoon grow too crafty for thoſe that are unſtuffed; but for pheaſants, woodcocks, and the like, there cannot be a more uſeful and cheaper way, than to uſe thoſe that are unſtuffed; for when you have made the ſhot, you may roll up the engine, and keep it for another occaſion.

Take notice, that theſe ſeveral ſorts of engines before mentioned, are to be uſed only in the morning, or late in the evening, and are more proper for water than land-fowl; for when the ſun is up, its reflection ſooner diſcovers the imperfections of the engine, which are better hidden by the water.

STANCHING BLOOD; in caſe a horſe, *&c.* happens to be cut or hurt, fill the cut full of the wool of a hare or rabbet, and hold it in ſome time with your hand, or elſe bind it on the part; then burn the upper leather of an old ſhoe, and ſtrew the aſhes among the wool, and let it lie on for twenty-four hours, and it will ſtanch the bleeding. Or,

Boil together honey, wax, turpentine, ſwine's greaſe, and wheaten flour, ſtirring and mixing them well together,

gether, till they are become an ointment, then take it off the fire, and put it up in a gallipot for uſe; but if the cut be of any conſiderable depth, put in a tent of flax, or linen cloth dipped in the ointment, and lay a plaiſter of the ſame over it, letting it lie on twenty-four hours.

If a horſe happens to bleed violently at the noſe, ſtamp betony in a mortar with ſalt, and put it into his noſe, applying it to the wound and it will ſtop it; but if he be taken ſuddenly in the highway, *&c.* and you cannot get the herb, ſcrape a felt hat or piece of woollen cloth with a knife, and apply it to the part, and it will ſtanch it.

STARE. } A bird kept for his whiſtling;
STARLING. } but the great fault generally is, that they get them too much fledged out of the neſt, which makes them generally retain too much of their own harſh notes; ſuch therefore as would have them good, and void their own natural ſpeaking tone, muſt take them from the old ones at two or three days old; and this ſhould be done; by all birds that you deſign to learn to whiſtle or ſpeak, or would have learn of another bird by hanging under his cage.

STARS; are diſtinguiſhing marks in the foreheads of horſes, and they are uſually made either white, black, or red.

The method of making which is as follows:

If you would have a white one in his forehead, or indeed any other part of his body, firſt, with a razor, ſhave away the hair, of the width or bigneſs that you would have the ſtar to be; then take a little oil of vitriol in an oyſter ſhell, and dip a feather or piece of ſtick into it, for it will eat both linen and woollen, and juſt wet it all over the place that you have ſhaved, which will eat away the root of the hairs, and the next that come will be white. It need not be done above once, and may be healed up with copperas-water, and green ointment.

STARTING; in the manage a horſe is ſaid to be ſtarting, ſkittiſh, or timorous, that takes every object he ſees to be otherwiſe than it is.

This fault is moſt common to horſes that have defects in their eyes: you ſhould never beat a ſtarting horſe in his conſternation, but get him to advance gently to the object that alarms him.

STAY. To ſtay the hand; to ſtay or ſuſtain a horſe, is to hold the bridle firm and high.

We likewiſe ſtay or ſuſtain a horſe with the in-leg or the in-heel, when he makes his croup go before his ſhoulders upon volts.

We ſtay a horſe again when we hinder him to traverſe, when we ride him equally, keeping him always ſubject, ſo that his croup cannot ſlip out, and he can loſe neither his cadence nor his ground, but marks all his times equal.

STEP AND LEAP; is one of the ſeven airs, or artificial motions of a horſe, being as it were, three airs; for the pace or ſtep in *terra a terra*, the raiſing is a corvet, and the leap finiſhes the whole.

The ſteps put the horſe upon the hand, and gives him a riſe to leap like one that runs before he leaps, and ſo many leaps higher than he that goes every time a leap. For leaps of all kinds, give no help with your legs at all, only hold him with the bridle-hand when he riſes before, that ſo he may riſe the higher behind; and when he begins to riſe the higher behind, then put you bridle-hand a little forwards to hold him up before, and ſtay him there upon the hand, as if he hung in the air; and time the motion of your bridle-hand, ſo as that you may take him as if he were a ball upon the bound, which is the greateſt ſecret of all in leaping a horſe right.

STERN, [with Hunters] the tail of a greyhound or a wolf.

STEW, is a kind of fiſh-pond, contrived for ſerving the daily uſe of a family, ſo that with little trouble the houſe may be furniſhed with fiſh at any time.

This ſhould be ſo ſituated as to be near the chief manſion, and incloſed, the better to be defended from robbers.

If you have two great waters of three or four acres a piece, it will be proper to have four ſtews, of two rods wide and three rods long each.

In making of theſe the ſides ſhould be cut down ſloping, carrying the bottom in a continual decline from end to end, ſo as you may have a convenient mouth, as horſe-ponds have, for the taking out your nets when you have drawn for fiſh; and if you have room enough you may make a mouth at both ends, and the deepeſt part ſhould be in the middle, by which means your net may be drawn backwards or forwards; and the fiſh ſhould not have ſuch ſhelter as a depth under a head will be.

Add to this, that fiſh delight in coming upon the ſhoals, and in all probability they thrive the better.

Theſe may chiefly be reſerved for carp, but not abſolutely; and if you perceive your tench and perch to encreaſe and proſper, you may make leſſer ſtews to ſerve them a-part, and ſo you may have them when you pleaſe, without diſturbing the other fiſh.

But remember this, that perch will ſcarce live in ſtews and ſmall water, in hot weather, but will pine, grow lean and thin, if not die: ſo that the ſtews are to be their winter quarters, but in the ſummer they ſhould be in green ponds.

STICKLE-BACK; this fiſh is ſmall, prickly and without ſcales, and not worth minding, but that he is an excellent bait for trouts, eſpecially if his tail be turned round on the hook, at which a trout will bite more eagerly than at penk, roach, or minnow.

The loach is alſo as good bait as the ſtickleback, provided you place it right on the hook.

And that you may do it, take this obſervation, that the nimble turning of the penk, minnow, loach, or ſtickle-back, is the perfection of that ſort of fiſhing.

That you may do it the better, take notice that you muſt put the hook into the mouth of any of the aforeſaid baits, and out at their tail, tying him faſt with white thread a little above it, in ſuch ſort that he may turn; after this ſew up his mouth and you have done.

This way of baiting is very tempting to large trouts, and ſeldom fail the angler's expectation. This fiſh is in ſome places called a bandſtickle.

STIFLE

STIFLE IN A HORSE, a large muſcle, or that part of the hind-leg which advances towards his belly, ſimilar to the ſmall cramp bone in a leg of mutton; and is a moſt dangerous part to receive a blow upon.

STIFLING, is a malady that accidentally befals a horſe either by ſome ſtrain, by leaping, or by a ſlip in the ſtable, or in travelling, or elſe by ſome blow or ſtroke, which puts out the ſtifle-bone, or much hurts and ſtrains the joint.

The ſign of this is by the diſlocated bone bearing itſelf out, which will make him go lame, and unwilling to touch the ground but only with his toes, till it be put in again.

The common method of cure is to ſwim the horſe in ſome deep water or pond, till he ſweats about his ears, which will put the bone into its right place again, and when he is thought to have ſwam enough, to take him out of the water and to throw an old blanket over him, to prevent him from taking cold, and lead him gently home.

Then begin in the ſtable; put a wooden wedge of the breadth of a ſixpence between the toe and the ſhoe, on the contrary foot behind, and when he is thoroughly dry anoint the part aggrieved with hen's greaſe, or oil of turpentine, and ſtrong beer, of equal parts alike, well ſhaken and mixed together in a vial.

It is to be well chafed in with the hand, one holding at the ſame time a hot bar of iron or fire-ſhovel, to make it ſink in the better: or you may apply to it brandy and common ſoap, and ſtrong beer, mixed together:

Or, tie down the horſe's head to the manger, and faſten a cord to the paſtern of the ſtifled-leg, and draw his leg forwards, ſo that the bone will come right by being helped with the hand; keep it in this poſition exactly, and tie the other end of the cord to the rack, that the horſe may not pull his leg back ſo as to diſlocate the bone for an hour or two, till after it has been ſettled and dreſſed.

Then having ready melted pitch in a pot, dip a bit of a clout tied to a ſtick into the pitch, anoint the ſtifling with it, to the breadth of three or four inches, and the length of ten; and immediately before the pitch can cool, having ready a ſtrong piece of canvas cut fit for the purpoſe, and very well warmed by the fire, clap it ſo neatly upon the place, that the bone cannot ſlip out again.

Take notice, that this plaiſter muſt not be long-ways towards the foot and flank; but croſs-ways upon the joint, as it were about the thigh; for otherwiſe it cannot hold in the bone.

When you have laid on the plaiſter, anoint it all over with the melted pitch, and while it is warm, clap flax, the colour of the horſe, all over the outſide of the canvas.

Let the plaiſter remain on till it falls off of itſelf; but if the bone be out, then put in a *French* rowel, a little below the ſtifling place, and let it remain fifteen days, and turn it once every day: at the end of fifteen days take it out, and heal up the orifice with green ointment.

STIFF LEGS, a diſeaſe in horſes, under which are alſo comprehended dry, decayed or bruiſed legs.

For the cure: take of ſpirit of wine a quart; oil of nuts, half a pint; butter half a pound; put them into a glazed earthen pipkin and melt them, covering the veſſel with another that is leſs, exactly fitted to it, lute the junctures well with clay, mixed with horſe-dung or hair; and after the cement is dry, ſet the pot on a very gentle fire, and keep the ingredients boiling up, very ſoftly for the ſpace of eight or ten hours; then take off the pot and ſet it to cool: when uſed, rub the maſter ſinew with your hand till it grows hot, then anoint it with this compoſition, chafing it in, and repeat the ſame every day.

STIPTIC POWDER; is a reſtringent preparation of iron, commonly called COLEBATCH'S *Styptic Powder*, after the name of its inventor, SIR JOHN COLEBATCH. It is prepared after the following manner:

Upon what quantity of filings of iron you pleaſe pour ſpirit of ſalt, ſo as to cover them to the height of three or four fingers, and let them ſtand in a gentle digeſtion, till the fermentation is over, and the ſpirit of ſalt is become ſweet; then pour off the liquid part, and evaporate in an iron or glaſs veſſel, till half of it is waſted; then put it into an equal quantity of *ſaccharum ſaturni*, and evaporate it to a dry powder; if the evaporation be ſtopped at its firſt becoming dry, it has exactly the appearance of COLEBATCH'S *Powder;* but if it be continued longer, and the heat raiſed, it will turn red.

This muſt be kept ſtopped up very cloſe from the air, or elſe it will imbibe, and ſo flow as to loſe its efficacy.

Dr. QUINCY tells us, that he was very well informed, that this was the ſtyptic that made ſo much noiſe in the world ſome years ſince, by the author of *Novum Lumen Chirurgicum*, and for the ſale of which a patent was procured; except, the oil of vitriol was uſed in that, inſtead of the ſpirit of ſalt in this; and that the difference is very inſignificant.

He ſays alſo, that he kept ſome of this by him, till he found a proper opportunity to try it, when an extraordinary one happened, by a blundering farrier cutting the jugular artery of a very fine young horſe: and that having ſtopped the flux of blood, by griping the part with his hand, till the doctor had diſſolved ſome of this powder in warm water, and with currier's ſhavings of leather dipped in it, he applied it to the part, not one drop of blood followed afterwards, and the part was eaſily incarnated and healed up.

STIRRUP, a well known iron frame, faſtened to a ſaddle with a thong of leather, for the rider to reſt his foot on.

Let your ſtirrup-leather be ſtrong, as alſo the ſtirrup-irons, which ſhould be pretty large, that you may the ſooner quit them in caſe of a fall.

Stirrup, is a reſt for a rider's foot, compoſed of ſome ſmall pieces of iron, forged into bars, and level below, but arched in the upper part, by which part they are hung in ſtirrup-leathers.

Bear vigorouſly upon your ſtirrup when you have your foot

foot in it, and hold the point of your foot higher than the heel.

When you would ſtop your horſe, you muſt bear upon the ſtirrups.

You ſhould keep your right ſtirrup half a point ſhorter than the left, for in combat the horſeman bears and reſts more upon the right, and to facilitate the mounting of your horſe, the left ſtirrup ſhould be longer than the other.

To loſe one's ſtirrups, is to ſuffer them to ſlip from the foot.

The ſtirrup foot, or the near fore foot, is the left foot behind.

Stirrup-leather, is a lathe or thong of leather, deſcending from the ſaddle, down by the horſe's ribs, upon which the ſtirrups hang.

Stirrup-bearer, is an end of leather made faſt to the end of the ſaddle, to truſs up the ſtirrups when the rider is alighted, and the horſe ſent to the ſtable.

STOMACH SKINS; there are ſome foals under the age of ſix months, which, though their dams yield abundance of milk, decay, and have a cough, occaſioned by certain pellicles or little ſkins that breed in their ſtomachs, even to that degree as to obſtruct their breathing, and at laſt utterly deſtroy them.

To cure this malady, take the bag wherein the foal came out of the belly of its dam, and having dried it, give as much thereof in milk as you can take up with three fingers.

This remedy is alſo good for all diſeaſes that befal them while they are under ſix years of age: but if you cannot have the bag, then take the lungs of a young fox, dry and powder them, and uſe it inſtead of the aforeſaid powder.

STONE FALCON, a kind of hawk that builds her neſt on rocks.

STONE-BRUISING, a misfortune that befals the cods of a horſe by divers accidents.

For the cure: take honey and freſh butter, of each half a pound, melt them; to which add the juice of green coleworts, one pound; leaves of rue picked from the ſtalks, a good handful; black ſoap, four ounces, and one pound of bean-flour; ſtamp the rue in a marble mortar, then add the honey, and afterwards the juice of coleworts, butter, and black ſoap; mix them well without heat, and make a poultice with the bean-flour, and apply it cold with a hog's bladder, and keep it on with a bandage tied about the horſe's back.

Hard ſwellings may be cured by this method, and removing the dreſſing once a-day; and the quantity here preſcribed will probably be ſufficient to perfect the cure, by being applied frequently.

But if the ſwelling be attended with a great inflammation, then add to the whole compoſition two drachms of camphor, diſſolved in three ſpoonfuls of the ſpirit of wine; but if by the bruiſe the tumour be ſeated in the ligaments that are above the ſtone, chafe the part with ſpirit of wine camphorated, and afterwards apply the following cataplaſm or poultice.

If you have reaſon to believe that there is matter generated in the ſtones, ſpread *emplaſtrum divinum* on very ſoft leather, about the bigneſs of the palm of your hand, and lay it upon the part affected, even where the matter ſeems to be ſeated, and then apply the poultice, and if the matter be either actually generated, or ready to be formed, the plaiſter will draw it.

You muſt take the plaiſter off once a day and wipe it, but you need not change it; and by following this method the horſe may be cured without gelding.

The horſe muſt be let blood both at the beginning and end of the cure.

STONES-SWELLING, } (in Horſes) a malady
STONES-HARDENING, } towhic h they are incident. *See* the article CODS.

For the cure: take yellow wax, freſh butter, and oil of olives, of each half a pound; ſtrong vinegar, half a pint; boil them together till the vinegar be almoſt conſumed, then take the veſſel off the fire, and put in an ounce of camphor powdered; make a poultice and apply it to the ſwelled cods; let it lie on four hours, then lay on another poultice upon the firſt, without taking off the former or uncovering the part.

If the inflammation be but a ſimple one, it will aſſwage the ſwelling and abate the pain; but if the ſwelling ſhould continue after the heat and pain is removed, and the cods do hang down very low, it is a ſign that the horſe is troubled with a hydrocele, that is, when by a relaxation of the peritonæum, the cods are filled with water, which having been too long retained in the part, by reaſon of the great difficulty of expelling it through the pores, may corrupt and ulcerate the ſtones.

For the cure of this ſort of ſwelling, or hydrocele, make a ſort of gruel with barley-meal and vinegar, and when it is almoſt boiled, take half the quantity of chalk, with a ſufficient quantity of oil of roſes and quinces, and two handfuls of ſalt; apply this remedy as hot as you can endure it with your hands, and bind it on very carefully:

Or, boil a ſufficient quantity of beans in lees of wine, till they are ſoft and tender, then pound them to a maſh, to every pound of which add a quarter of an ounce of caſtoreum in fine powder; incorporate them well together, and few two pounds of them up in a bag large enough to cover the ſtones; firſt anoint the cods with ointment of the oil of roſes, and then lay on the bag as hot as you can ſuffer it to lay on the back of your hand, binding it on as well as you can; let it lie on for twenty four hours; then heat the bag again in the ſame lees of wine in which the beans were boiled, and lay it on again; repeat this continually till the ſwelling be abated.

If the *peritonæum*, or rim that holds the entrails, be relaxed, the guts will fall into the cods, which will appear viſible. In this caſe you muſt firſt endeavour to put up the fallen guts, and then apply the following fomentation:

Take of the bark of the pomegranate and oak trees, green oak apple, *Cyprus* nuts, barberries, and ſomach, of each two ounces: anniſe and fennel ſeeds, of each

an ounce, chamomile melilot, and pomegranative flowers, of each a handful, and powder of crude-alum, four ounces; put them into a bag large enough to cover the horſe's cods (and if this quantity be not ſufficient double it) ſew it up after the manner of a quilt, and put the firſt quantity with a quarter of a peck (or half for the double) of beans in a pot of ſloe wine, or ſome thick red wine, and boil them for the ſpace of two hours; then apply the bag moderately hot to his cods or ſtones, cleverly faſtening it on with a bandage, put round the flanks, and tied on the rump. Continue this application for ſome time, heating the quilted bag afreſh every time in the ſame liquor.

But after you have put up the guts, the ſureſt way is to geld the horſe, for then the cods will ſhrink up, and the guts will not any more come down into them.

But if it be a rupture, incording or burſtenneſs, which is when the rim, thin film, or caul, which holds up the entrails, is broken, or over-ſtrained, or ſtretched, ſo that the guts fall down either in his cods or flank: then uſe the following remedy:

Take common pitch, dragon's-blood, powder of bole-ammoniac, maſtic, and frankincenſe, of each one ounce, make a plaiſter of theſe, and lay it upon the loins of the horſe, and on the rupture, letting it abide on till it falls off itſelf, and it will cure him; but then you muſt at the ſame time give him ſtrengthening things inwardly, of which there are many preſcribed, as rupture-wort, croſs-wort, valerian, &c.

Or, carry the horſe into a place where there is a beam over-thwart, and ſtrew it thick with ſtraw; then put on four paſterns, four rings on his feet together, and he will fall, then caſt the rope over the beam and hoiſt him up, ſo that he may lie flat on his back, with his legs upwards, without ſtruggling; then bathe his ſtones with warm water and butter melted together; and when they are become ſomething warm, and well mollified, raiſe them up from the body with both your hands, being cloſed by the fingers, cloſe together; and holding the ſtones in your hand, work down the gut into the body of the horſe, ſtroking it downwards continually with both your thumbs, till you perceive that ſide of the ſtone to be as ſmall as the other.

Having thus returned the gut to the right place, taking a lift of the breadth of two fingers, and having anointed it very well with freſh butter, tie his ſtones cloſe together with it, as nigh the body as you can poſſibly, but not too hard, but ſo that you can put your fingers between.

Then raiſe the horſe, and lead him gently into the ſtable, ſet him up and keep him warm, and let him not be ſtirred for the ſpace of twenty-one days; but do not omit the next day to unlooſe the lift, and to take it away, and to throw a bowl or two of cold water upon the cods once or twice for that day and every day after: this will make him ſhrink up his ſtones, and by that means hinder the gut from falling down.

At the end of twenty-one days, in order to render the cure more effectual, take away the ſtone on the burſten ſide, and ſo he will hardly be burſten again on that ſide; and during the cure, let him neither eat nor drink much, and give him his drink always warm.

STOP; is a pauſe or diſcontinuation.

To form a ſtop, is to ſtop upon the haunches: to form a ſtop of a horſe, you muſt in the firſt place, place the calves of your legs to animate him, bend your body backwards, raiſe the bridle hand without moving the elbow, then vigorouſly extend your hams, and reſt upon your ſtirrups, and make him form the times and motions of his ſtop, in falcading his haunches three or four times.

After ſtopping your horſe, make him give three or four curvets.

The oppoſite term of ſtop is parting.

In former times, the ſtop of a horſe was called parade.

Half a ſtop, is a ſtop not finiſhed but a peſade; ſo that the horſe, after falcading three or four times upon the haunches reſumes and continues his gallop, without making peſades or curvets.

STOPPAGE OF URINE IN DOGS, a diſtemper which ſometimes befals them when their reins have been overheated, which cauſes in them extreme pain, and often endangers their lives, if a preſent remedy be not applied, by reaſon of an inflammation which is cauſed in the bladder, in which a gangrene will enſue; which will then render the diſtemper incurable.

For the cure: boil a handful of marſh-mallows, as much of the leaves of arch-angel, fennel-roots, and bramble, whole together, in ſome white wine, till one-third is conſumed, and give it to the dog to drink.

STOTE. A kind of ſtinking ferret.

STRAIGHT; to part or go ſtraight, or right on, is to go upon a tread, traced in a ſtraight line.

STRAIN. } A misfortune that befals a horſe when
SPRAIN. } his ſinews are ſtretched beyond their due tone, by reaſon of ſome ſlip or wrench, by which means their ſpringingneſs or elaſticity is ſo far deſtroyed, that they cannot recover their proper tone for ſome time.

The only practicable method of reducing diſlocations in the joints of cattle, is to caſt the animal upon his back on a ſoft bed, and draw up his four legs with pullies; the diſplaced joint ought then to be extended, with all poſſible tenderneſs and care, duly replaced, and bound.

The general cauſe of thoſe frequent ſtrains in the back ſinews, to which horſes in *England* are peculiarly liable, is our cuſtom of hard riding; but the extent of the miſchief may be conſiderably reduced, by the improved method of ſhoeing, which reſtores to the *flexor* tendons, or main ſinews, the intire frog, intended by nature as their cuſhion and ſupport. In all inviſible or uncertain lameneſſes, it ought to be an inviolable rule to attempt no random methods of cure, but to turn the horſe to graſs, a ſufficient length of time, during which, he will probably either obtain a cure, or diſcover the ſeat of his malady.

In turning lame horſes abroad for recovery, ſpecial care

care ought to be taken that they are not confined in a narrow place with ſound ones, which may drive and harraſs them about. When the back ſinews are conſiderably let down, and the frog will not touch the ground, it is of great uſe to turn the horſe off in a light bar-ſhoe, the bar reſting upon the ground, and ſupporting the frog and the tendon.

Various Forms of Embrocation for Strains. Beſt vinegar, one pint; camphorated ſpirits, four ounces; white vitriol diſſolved in a little water, two drachms; mix. Or, vinegar, half a pint; camphorated ſpirits, and ſpirit of vitriol, two ounces each; mix.

Take diſtilled vinegar, eight ounces; diſſolve therein one ounce Caſtile-ſoap; add half an ounce ſal ammoniac. Or, ſugar of lead, alum, and white vitriol, one drachm each; powder and diſſolve them in four ounces tincture of roſes, and two of japan earth. This is powerfully aſtringent.

Take the whites of three or four eggs, beat them to froth, add roch alum, finely powdered, one ounce. Spirits of wine camphorated, and of turpentine, half an ounce each, mix.

An Opodeldoc, diſcutient and bracing. Spirits of wine, two pints; *Spaniſh* ſoap, five ounces; digeſt in a gentle heat until the ſoap is diſſolved, then add camphor one ounce; oil of origanum, one ounce. The quantities of camphor and origanum may be increaſed upon occaſion.

Oil of turpentine, one ounce; ſpirit of wine camphorated, two ounces. This from BRACKEN, but I find if conſtantly uſed, the turpentine fetches off the hair; perhaps the addition of a little Barbadoes-tar might prevent that effect; which, in fact, will be changing the turpentine into oil of ſpike.

For enlarged, inflamed, and weakened Tendons. Foment twice a day with decoction of white lily roots, mallows, elder leaves and flowers, bay-leaves, &c. Make a poultice for the parts of the fomentation thickened with meal. The tenſion ſubſided, apply twice a day the *ſalt cataplaſm;* or, common ſalt, whites of eggs, vinegar, and oatmeal, uſing alſo aſtringent mixtures. Or, make two inciſions through the ſkin below the diſeaſed part, being careful not to wound the fibres, or ſheath of the tendon, apply as above, and keep the wound running.

Remedy for Sprains.

Take pitch and tar, ſuch as are uſed for ſhips or carts, a pound; aqua vitæ, a pint; boil them together over a charcoal fire, leſt any flame ſhould touch them, ſtirring them often for a quarter of an hour; then add two ounces of fine bole, in powder; and thicken the whole with flour; put this warm upon tow, and apply it all round the footlock, binding it on; renew it every two days, and there is ſcarce any ſprain that will not be well in three or four applications, provided you dreſs the part firſt with the eſſence of turpentine; the only inconvenience of this remedy is, that it tarniſhes and reddens white or grey hair, and the ſtain appears for ſome time after; however, the remedy is excellent, and in black horſes has no ill effect. It is admirable alſo for blows and ſwellings in the knees and hams; but in theſe caſes you muſt uſe no eſſence of turpentine. What makes this remedy the more to be preferred is, that, though equally good with any, it coſts but a trifle.

If the complaint has been long ſtanding, ſlice three ounces of Caſtile-ſoap very thin, and put it into a pint of ſpirits of wine; let it ſtand in a warm place till it is diſſolved, and then put in an ounce of camphor. When this is likewiſe diſſolved, it will be fit for uſe. Warm a little of it, and rub the place affected every morning and evening.

Theſe accidents are very common, and affect various parts; ſome of which are eaſily cured, and others require a very conſiderable time and care.

We ſhall conſider the ſeveral parts that are moſt liable to theſe accidents, and lay down the moſt proper methods of treating them.

When the ſhoulder of a horſe is ſtrained, he does not put out the leg like the other; but to eaſe himſelf, ſets the ſound foot firmly on the ground to ſave the other. When trotted in hand, he forms a kind of circle with his lame leg, inſtead of putting it forwards; and when he ſtands in the ſtable that leg is advanced before the other.

The firſt thing is to bleed him, and then bathe the ſhoulder thrice a day with hot verjuice or vinegar, with a piece of ſoap diſſolved in it. But if there be no ſwelling nor inflammation, though the lameneſs ſtill continues, let him reſt two or three days, and then bathe the part well with the following liniment, or opodeldoc; Take of *Jamaica* pepper four ounces; of winter's bark, carraway-ſeeds, bay and juniper berries, bruiſed, of each two ounces; of roſemary, marjoram, and lavender flowers, of each one ounce; of rectified ſpirits of wine, three pints: let them digeſt in a gentle heat ten days; ſtrain out the tincture, and add to it Venice-ſoap a pound and a half; of camphor, three ounces; Barbadoes-tar, four ounces: of oil of turpentine, ſix ounces; and of oil of amber, two ounces; let theſe digeſt in the tincture till the whole becomes a liniment.

This is an excellent medicine, and will do wonders in ſtrains, provided the creature have proper reſt, and a proper bandage be added; for theſe will prove of the utmoſt ſervice, and often do more towards a cure, than the moſt powerful medicines.

When the ſhoulder is conſiderably ſwelled, it ſhould be fomented with woollen cloths, wrung out of hot verjuice and ſpirit of wine, which will prove of great uſe, and remarkably facilitate the cure.

STRAINS OF THE KNEES AND PASTERNS. This diſeaſe frequently happens from kicks or blows; accidents that ſhould carefully be avoided. If the part affected be greatly ſwelled, apply the poultice above recommended; and when the ſwelling is aſſuaged, bathe the limb with the medicines mentioned in the foregoing article.

The *French* farriers ſtrongly recommend the following poultice for old ſtrains; and I know from experience that it is a very effectual medicine, and has performed

cures when all others have failed: Take of common tar one pound: ſtir it together over a fire till it incorporates, then add two ounces of bole ammoniac finely powdered, and a ſufficient quantity of oatmeal, to bring it to the conſiſtence of a poultice, together with lard enough to prevent its growing dry: let this be applied to the part affected ſpread on cloth, and renewed twice a-day.

STRAIN IN THE HOCK. Let the part be well ſoaked in cooling and repelling medicines; but if the ligaments are hurt and the injury attended with weakneſs and pain, foment them with the cloths wrung out of hot vinegar, or the decoction abovementioned, with the addition of crude ſal ammoniac, and a handful of wood-aſhes boiled in it. If a hardneſs ſhould remain on the outſide, it ſhould be removed by repeated bliſterings, for which purpoſe the following ointment ſhould be uſed: Take of nerve and marſhmallow ointment, of each two ounces; of quickſilver one ounce, well rubbed with *Venice* turpentine; of *Spaniſh* flies powdered, a drachm and a half; and of oil of origanum, two drachms; make the whole into an ointment, and apply it pretty thick to the part affected, after the hair has been cut as cloſe as poſſible.

For other ſtrains: Take of hog's-lard, nerve-oil, bole-ammoniac, and Caſtile-ſoap, of each half a pound: boil them well together, keeping them ſtirring till the compoſition is cold, and put in a pipkin for uſe; and when you have occaſion, anoint the part afflicted, with this ointment, warm, rubbing it well in.

For a ſtrain newly done: take white-wine vinegar, bole ammoniac, the whites of eggs, and bean flour, beat all theſe into a ſalve, and lay it on the ſore very hot.

For a ſtrain or grief proceeding from heat; beat the whites of ſix eggs with a pint of white-wine vinegar; oil of roſes and myrtles, of each an ounce; bole ammoniac four ounces, as much dragon's-blood, and as much bean or wheat flour (the firſt is the beſt) as will thicken them; make it into a ſalve, and having ſpread it upon hurds, lay it upon the part affected, but do not renew the application till the firſt is grown dry.

For a new ſinew-ſtrain; take bole ammoniac in powder one ounce, of common ſoap four ounces, the whites of new-laid eggs, half a gill of brandy, a gill of white-wine vinegar, and a quarter of a pint of new wort, and half a gill of oil of turpentine; incorporate theſe very well together with your hands, and rub and chafe the thinneſt of it upon the part aggrieved, a hot fire ſhovel being held before it; then daub it all over with the thickeſt in the nature of a charge, or hurds, and bind it up with a linen cloth; and if you ſee occaſion you may renew the charge.

The back ſinews are commonly ſtrained, a misfortune eaſily diſcovered by a ſwelling, which ſometimes extends from the backſide of the knee down to the heel; and at the ſame time, the horſe ſets that leg before the other.

The moſt effectual method of removing this complaint, is to bathe the tendon three or four times a-day, with hot vinegar; and, if the part be conſiderably ſwelled, to apply a reſtringent poultice, made with bran or oatmeal, boiled in vinegar, ſtrong beer, or red wine lees, and a ſufficient quantity of lard added to prevent its growing thick. When the ſwelling is removed, bathe with the opodeldoc abovementioned, or with a compoſition of camphorated ſpirits of wine, and oil of amber; obſerving to roll a proper bandage round the part. Some apply to the part affected, currier's ſhavings wet with vinegar; and others a compoſition of tar and ſpirits of wine: both theſe have been found of great uſe. But an injury of this kind muſt not be expected to be removed immediately; reſt is abſolutely neceſſary; and it would be of great ſervice, if the creature were turned to graſs, as ſoon as the ſwelling is removed, and the other medicines have had a proper time to operate; or,

Put an ounce of *Venice* turpentine into three ſpoonfuls of brandy or ſpirits of wine, ſtir them well together, and rub the ſtrained part well with it, having firſt warmed it over a chafing diſh of coals; repeat this once a day, for three or four days ſucceſſively. If you cannot get *Venice* turpentine, oil of turpentine will do as well.

If the horſe's ſinews are ſo ſtrained, that the limb or member is rendered uſeleſs, take cantharides, euphorbium, mercury, and double the quantity of oil of bays to all the reſt, reduce the hard drugs to a powder, and pound them together with the oil to a ſalve, and apply it to the part aggrieved: and though it makes it ſore, it will give ſtrength and ſtraightneſs to the ſinews.

The ſore may be healed with the ointment of populeum, freſh butter or deer's-greaſe, warm.

A Strain in the Coffin.

If a ſtrain in the coffin joint is not diſcovered in time, the part will grow ſo ſtiff that the horſe will touch the ground only with his toe; nor can the joint be moved by the hand. The only method that can in this caſe be purſued with any hopes of ſucceſs, is repeated bliſtering, and then firing the part ſuperficially; or,

Take hog's-lard, *Caſtile* ſoap and bole ammoniac powdered, and alſo nerve oil, of each equal quantities, boil them together, and keep them ſtirring whilſt they are on the fire; then put the mixture in a gallipot for uſe, and when you uſe it, rub it in well with your hand, and then paſs a hot iron over it: repeat this once a day till the horſe is well.

A charge for the ſame. Take black pitch, *Burgundy* pitch, and common turpentine, of each four ounces, melt them together, and when they are well mixed, lay the charge or ſalve, round the joint, as hot as the horſe can well bear it, cover it immediately with flocks, and when that comes off, lay on another charge if there be occaſion.

STRANGLE IN HORSES, is not, as ſome ſuppoſe, a quinſey, but an inflammation in a horſe's throat, proceeding from ſome choleric or bloody fluxion, which comes out of the branches of the throat veins into thoſe parts,

parts, and there breed ſome hot inflammation, excited by a hard cold winter, or by cold catched after hard riding or labour.

Colts, and young horſes under ſix years of age, are generally the ſubjects of this diſeaſe; and it never returns a ſecond time to the ſame horſe.

It is a hard ſwelling between the horſe's chaps, upon the roots of his tongue, and about his throat, which ſwelling, if not prevented, will ſtop his windpipe, and ſo ſtrangle or choak him.

The ſymptoms attending this diſorder are great heat and feveriſhneſs, a painful cough, with great inclination to drink without being able. Some horſes loſe their appetite intirely, and others eat but very little, occaſioned by the pain reſulting from the motion of the jaws in chewing and ſwallowing.

This diſeaſe, though very troubleſome, is dangerous only when the ſwelling turns upward againſt the windpipe and gullet, when the horſe is liable to ſuffocation, unleſs it breaks ſoon; or when the horſe runs at the noſe, a ſure ſign that the diſeaſe is of a malignant nature, and has affected other parts.

The ſtrangles is not, properly ſpeaking, a diſeaſe of itſelf, but a criſis of others; an effort of nature, which has throw the offending humours on thoſe parts. It therefore follows, that we muſt by all means promote a ſuppuration. This is to aſſiſt nature in her efforts to throw off the load of offending matter, which clogs and diſturbs the animal machine. The ſwellings, therefore, ſhould be kept conſtantly moiſt with an ointment of marſhmallows, and the head and neck covered with a warm hood. The following poultice will alſo be of great uſe in promoting a ſuppuration, and therefore a very proper application in this diſeaſe: take of the leaves of marſhmallows, ten handfuls; of the roots of white lily, half a pound; of linſeed and fenugreek ſeeds bruiſed, of each four ounces; boil them in two quarts of water, till the whole becomes of a pulpy conſiſtence; take it off the fire, and add to it two ounces of the ointment of marſhmallows, and a ſufficient quantity of hog's-lard to prevent its growing ſtiff and dry.

This poultice ſhould be applied hot twice a day, and will greatly facilitate the maturity of the ſwelling; for the matter will be formed in five or ſix days, and open itſelf a paſſage through the ſkin. If the opening formed by nature be capacious enough to admit a free diſcharge of the morbid matter, there will be no neceſſity to enlarge; but if not, you muſt not fail to do it with a knife or lancet.

When the ſwelling is broke, and the orifice of a proper ſize to diſcharge the matter, dreſs it with the following ointment ſpread on tow, but apply over the dreſſing the above poultice, in order to promote the digeſtion, and remove the remains of hardneſs occaſioned by inflammation: take of roſin and *Burgundy* pitch, of each a pound and a half; of honey and common turpentine, of each eight ounces; of yellow wax, four ounces; of hog's lard, one pound; and of verdigris finely powdered, one ounce: melt the ingredients together, but do not put in the verdigris till the veſſel is removed from the fire, and then the ointment muſt be continued ſtirring till cold, otherwiſe the verdigris will fall to the bottom.

Sometimes the fever and inflammation are at a conſiderable height at the beginning of the ſtrangles; in this caſe it will be neceſſary to take away a moderate quantity of blood, and to dilute the remainder with plenty of water-gruel, or warm water, maſhes, and the like.

If the running at the noſe, which, as already obſerved, ſometimes attends the ſtrangles, ſhould continue after the ſwellings are broke, there will be danger of weakening the horſe. An ounce of jeſuit's bark, therefore, or a ſtrong decoction of guaiacum ſhavings, ſhould be given him for ſome time every day, which will have a very good effect in ſtopping their glandular diſcharges, and drying up ulcers of all kinds in horſes.

When the horſe has recovered his ſtrength, it will be neceſſary to purge him; and if any hardneſs ſhould remain after the wound is healed, it may be diſperſed by the mercurial ointment.

The fever may be moderated by cooling and laxative, but not purging clyſters; or by the ſaline powder, as directed in the article, Fevers; but be careful to avoid repellents of all kinds.

As ſoon as the fever is moderated, if there is any diſcharge at the noſe, give one ounce of bark every day, and continue it until the diſcharge is abated; and if any hardneſs remain about the part where the tumour was, rub it every day with the ſtronger blue ointment.

The baſtard-ſtrangles is a ſlight degree of the true ſort, in which the horſe is reſtleſs, feveriſh, and will lay down very often, but ſoon and ſuddenly ſtart up again. Sometimes this name is given to ſwellings in old horſes about the lower, and ſometimes the upper part, betwixt the upper jaw-bones, which ariſes from a poor, bad habit of body, frequent colds, and hard uſage.

But if it ſhould happen to break inwardly, then perfume his head twice or thrice a day, by burning frankincenſe or maſtich under his noſe, or elſe by putting a hot coal upon wet hay, the ſmoke of which let him receive up his noſtrils; or with a red hot iron thruſt a hole through the ſkin on both ſides the weaſon, and after it has begun to matter, mix butter, tanners water, and ſalt together, and anoint the ſore every day till it is whole: bleeding in the mouth is alſo very good for this diſtemper.

Mr. LAWRENCE ſays the ſtrangles is a well-known diſeaſe, which attacks moſt colts, and, according to GIBSON, uſually upon their being firſt put to labour, terminating in a critical abſceſs under the jaws.

The old *Engliſh* term for this diſeaſe, was the *ſtrangullion;* and BLUNDEVIL, after LAURENTIUS RUSSIUS, and the *Italian* writers, compares it to the *Cynanche* or *Angina* of the human ſpecies, giving of it, however, a very lame and imperfect account. SOLLEYSEL ſtyles it a northern diſeaſe, and compares it with the ſmall-pox, as thoſe before him had compared it to the quinſey, and it no doubt bears analogy, in many reſpects, with both diſeaſes. It is one of thoſe ſpontaneous efforts of nature,

ture, to diſburden herſelf of a ſuperflux of humours, which is final, and does not recur; as to the vives, to which aged horſes are ſubject, they either bear no relation to the ſtrangles, or this latter diſorder, in age, makes a different appearance. The matter of the ſtrangles is contagious in a certain degree, ſince a country farrier propagated the diſeaſe by inoculation, and wrote a pamphlet to recommend ſuch unneceſſary practice.

The authors to be conſulted in this caſe, are GIBSON and BRACKEN, all our other writers, without reſerve, having merely copied them: thoſe who may find it convenient "to ſink a tedious hour in the ſerious taſk of criticiſm," may refer to Mr. TAPLIN on the ſtrangles; where that moſt unfortunate of critics, like a true Signior Apundator, or Knight of the Peſtle, has ſuppoſed that *comminuted*, muſt neceſſarily and excluſively mean, *pulveriſed!*

Although the ſtrangles commonly attacks young horſes on their being firſt brought to labour, and the nouriſhing diet of the ſtable, at leaſt before they arrive at five years; yet I have both known unbroke colts ſeized with it in the fields, and horſes which have eſcaped it during their lives. Among colts at graſs, it has probably been ſometimes contagious. It is the cuſtom to ſuffer a colt to run it off at graſs; but I ſhould much rather prefer the taking him up inſtantly into warm keep, and proper care, leſt the diſcharge ſhould be checked by the repulſive property of the cold air, and a part of the diſeaſe, from inſufficient ſolution, be left in the habit to re-appear in time, under the guiſe and denomination of vives. BRACKEN ſeems inclined, under ſome circumſtances, to repel the ſtrangles; but thoſe only in which it could poſſibly be ſafe practice, in my opinion, are, when the tumour or tumours are ſmall, phlegmatic, and diſinclined to ſuppuration. They may then be treated with repellents as the vives, alterative or purgative medicines being joined. This is no very uncommon caſe even with colts.

The ſigns of the approach of this diſeaſe, are thruſting out of the noſe, hoarſe cough, feveriſh heat, hot breath, heavy and languid eyes, difficulty in deglutition. A ſwelling appears between the jaw-bone, increaſing daily until the fifth or ſixth day, when the impoſthumation breaks, diſcharging a large quantity of matter. In this favourable caſe, nothing more is neceſſary than to clothe the head well, anoint the abſceſs twice a day with an emollient ointment, and perhaps to enlarge the orifice, in a ſmall degree, when the matter firſt appears, and to heal afterwards with camphorated ſpirits. In the interim, the horſe's diet ſhould be ſoft and warm, with warm water, or white water, plenty of gruel, and the ſalts as occaſion may demand.

Should the diſorder ariſe upward among the glands, and divide itſelf into ſeveral tumours, which maturate at different periods, the progreſs and cure may be tedious: but when the abſceſs is formed above, nearly about the head of the windpipe, there is a degree of danger, ſince it may prevent a horſe from ſwallowing for ſeveral days; and if ſuppuration be long delayed, a ſuffocation may enſue. In this ſituation the eyes will be fixed, and the noſtrils dilated, as in convulſion. Running at the noſe is looked upon as an unfavourable ſymptom. Sometimes the ſwelling ariſes on the inſide of the jaw-bone, when it is a conſiderable time in coming to maturity; and the diſcharge muſt be evacuated by the mouth.

When it is neceſſary to promote ſuppuration by art, unguents and warm fomentations, uſed three or four times a day, are preferable to poultices in this reſpect, that the latter are apt to become cold, and by their repelling effect in that ſtate, to undo all the good they may have previouſly done; a difficulty I have often experienced: but if the attendant will take the pains of replacing the poultice, the inſtant they loſe the neceſſary degree of heat, there is no method half ſo efficacious. Receipts for poultices, embrocations, unguents, and preparations of various kinds, will be found by a reference to the different articles.

Should the diſcharge proceed by the mouth, cleanſe frequently with equal parts of beſt vinegar and ſpirit of wine, or brandy, diluted a little with water, and ſweetened with honey. Waſh the noſtrils with the ſame, paying all poſſible attention to cleanlineſs. Uſe no premature attempt to open the abſceſs, but ſhould nature be too tardy, a depending orifice may be made, not too deep, with a lighted candle, or preferably with a ſmall pointed cautery. If the fever run too high, bleed once; ſhould it become hectic and malignant, give the fever-drink; and in caſe of much diſcharge from the noſe, that the horſe appears weakened, the bark with red wine will be the beſt reſtorative; or ſtrong decoctions of guaiacum, rendered palatable with raiſins, figs, and honey, a quart a day for a week or two. Indurations of the glands remaining after the cure, will be beſt diſperſed by ſtrong mercurial unction, keeping the horſe ſafe from cold, and mild mercurial phyſic. In the ſame manner the vives are to be treated.

In this diſorder, maſhes muſt be the conſtant food, in ſmall proportions, to prevent waſte; in each of which Mr. TAPLIN directs to put of liquorice and anniſeed powders, half an ounce, and about two ounces of honey, or, in lieu of this laſt, a quart of malt. The drink, conſiſting of warm water impregnated with a portion of ſcalded bran or water-gruel, ſhould be given in ſmall quantities, and often. The head muſt be kept well covered with flannel, as the warmth will greatly tend to aſſiſt in promoting the neceſſary diſcharge; though, unleſs circumſtances and weather forbid, the horſe need not be confined, but ſhould have the advantage of air and gentle exerciſe. Nor ſhould regular dreſſing, and the accuſtomed courſe of ſtable diſcipline, be omitted, but only uſed in a leſs degree than when in health. This diſtemper is ſeldom dangerous, unleſs from neglect, ignorant treatment, or cruel uſage. It generally terminates with a running at the noſe, in a greater or leſs degree; which ſhould be frequently cleanſed from the inſide of the noſtrils, by means of a ſponge ſufficiently moiſtened in water, to prevent its acquiring an adheſion to thoſe parts, or a foulneſs and fetor that would ſhortly become acrimonious.

If a hardneſs remains after the ſores are healed up, they may be anointed with the following mercurial ointment:

ointment: Take of crude mercury and quickſilver, one ounce; *Venice* turpentine, half an ounce; rub together in a mortar till the globules of the quickſilver are no longer viſible; then add, by little and little, two ounces of hog's-lard, juſt warm and liquified; and let the whole be cloſe covered for uſe. When the horſe has recovered his ſtrength, purging will be neceſſary.

If a copious and offenſive diſcharge from the noſtrils ſhould continue after the abſceſs is healed up, there will be reaſon to ſuſpect the diſeaſe called the glanders, treated of in the laſt article. A certain author ſays, "If a large tumour ſoon appears, the diſeaſe will eaſily be conquered, and a laſting cure may be expected; but to begin the cure it will be neceſſary to make a cataplaſm or poultice: ſpread it upon ſome coarſe cloth, and ſew it tight about the ſwelling with a packing needle and twine."

Take leaves of mallows and of marſhmallows, of each ſix or eight handfuls; two pounds of white lily roots; linſeed and fenugreek, in powder, of each one pound; and half a quartern of bran: boil them all together in a ſufficient quantity of water till they are ſoft, then beat them up together and boil them again to a thick poultice; apply this warm, night and morning, after ſtirring a pound of hog's lard into it. When the matter comes forward, the tumour is to be opened, and the matter ſqueezed out; but the ſame kind of poultice to be conſtantly and regularly applied warm; and in a few days the whole will be run off.

"Bleeding and purging muſt be omitted till the matter is all entirely drawn away by the above cataplaſm; after which give him the following cathartic once, twice, or three times:

Take jalap and aloes, in powder, of each ſix drachms; ſal polychreſt, two ounces; ſal diureticus, half an ounce; buckthorn ſyrup, two ounces and a half; mix them together into a ball for one doſe. It may be repeated every fourth day, for three times, if the horſe is not too weak to bear it.

Warm maſhes, from the time the animal is taken ill till the humour is diſperſed, ſhould not be neglected; and warm water to be given to him the day he takes the phyſic.

Another receipt. Take marſhmallows, groundſel, chamomile, and hart's-tongue; bray them with an equal quantity of ſmallage, and fry the whole with hog's-lard; ſo, being very hot, apply it to the place, which ought to be under the caul, and it will mollify the ſwelling, and by degrees remove the obſtruction of the paſſage. Then take roche-alum, honey, and the white excrements of a dog, and diſſolve them with brown ſugar candy in a quart of milk; give it him hot, and ſo continue doing for a week, morning and evening; renewing likewiſe the poultice once a day.

STRANGURY, } IN HORSES, a diſtemper to
STRANGULLION, } which they are incident, which may be known by the horſe's having an inclination to ſtale often, and yet voiding only a few drops.

This may happen to a horſe various ways; ſometimes by hard riding, or much labour; ſometimes by hot meats and drinks, and ſometimes by an ulceration of the bladder, &c.

The firſt application neceſſary is to bleed largely, and after the operation give the following drink, and repeat it two or three times every two hours: Take of *Venice* turpentine, well rubbed with the yolk of an egg, one ounce; of nitre, or ſalt prunella, ſix drachms; of ſweet oil, half a pint; and a pint of white wine.

The horſe ſhould have plenty of marſhmallow decoction, with an ounce of nitre, the ſame quantity of gum arabic, and two ounces of honey diſſolved in every quart of it: for it muſt be remembered, that the more a horſe drinks of this emollient decoction, eſpecially when improved with nitre, gum arabic, and honey, the ſooner he will recover; as it will greatly tend to remove the cauſe of the diſeaſe, and conſequently to terminate its effects.

Some bathe the horſe's loins with warm water, and then tempering bread and bay berries with butter, give him two or three balls of it for three days ſucceſſively. Or,

You may uſe powder of flint-ſtone calcined, mixed with an ounce of the powder of parſley-ſeed, and as much of that of ivy-berries, and boil them a little in a pint of claret, and give the horſe, and it will do. Or,

A quart of new milk, and a quarter of a pound of ſugar, brew them well together, and give it to the horſe to drink in the morning faſting, and keep him warm. Or, boil a good quantity of hog's fennel in the water you give him to drink, and it will cure him.

The following poultice applied acroſs the loins, over the kidneys, hath been followed by good effects:

Take a handful of garlic, freſh-gathered; of muſtard-ſeed and freſh horſe-radiſh root, bruiſed, each half a pound; camphire, two ounces; green ſoap, enough to give the whole a proper conſiſtence; ſpread it on a coarſe cloth, and renew it every twenty-four hours until the horſe ſtales eaſily.

STRAPS OF A SADDLE; are ſmall leather ſtraps, nailed to the bows of the ſaddle, with which the girths are made faſt to the ſaddle.

STRIKE A NAIL; is to drive it through the horſe's ſhoe, and the horn or hoof of his foot; and to rivet it for holding on the ſhoe.

STRINGS, OR LINES, devices wherewith to take birds, both great and ſmall, and even water-fowl; they are made of long ſmall cords, knotted here and there, and containing in length as many fathoms as the places or haunts where you are to lay them require: theſe are of great uſe in taking of all ſorts of large wild-fowl, as alſo for plovers of both kinds.

When you are to uſe theſe ſtrings, they muſt be limed with the ſtrongeſt bird-lime; when coming to their haunts, if it be before the evening flight, it muſt be before ſun-ſet; if for the morning-flight, at leaſt two hours before day; and having a bundle of ſmall ſticks, about two feet long, ſharpened at both ends, and with a little fork at the upper end, let them be pricked a little ſlant-wiſe, ſo that they may be within a foot and a half of the ground; then ſhall theſe lime-twigs be drawn and laid upon the forks, ſome rows higher than

others, and higher in one place than another, like water waves, till every row be filled, and the haunt covered all over; then faſten the end with a ſlipping loop, in ſuch manner that upon any violent ſtrain the whole ſtring may looſen and lap about any thing that touches it, and by this invention great numbers of fowl, eſpecially plovers, may be taken, by reaſon of the great flocks they come in, and they are generally taken at their coming upon the ground, whoſe nature it is to ſweep cloſe, and ſo falling amongſt the ſtrings, are taken.

There is no need you ſhould be conſtantly at watch, for being entangled they cannot looſen themſelves; when you have done your ſport, lay them up for another time, only you muſt new daub them with freſh bird-lime: you may make uſe of theſe ſtrings and lines for taking water-fowl, and then uſe the beſt and ſtrongeſt bird-lime you can get, theſe ſtrings being laid over the rivers, ponds, or plaſhes of water where you deſign to take any, which muſt be in ſuch places where their haunts are, and let the ſaid ſtrings almoſt touch the water, and be as thick laid as before directed for land-fowl; and this caution muſt be carefully obſerved, not to uſe ſuch ſtrings in moon-ſhiny nights, for the ſhadow of the light will certainly create a jealouſy in the fowl, and ſo ſpoil your ſport. *See* SPRINGS.

STRING-HALT, IN HORSES, an imperfection, which is a ſudden twitching or ſnatching up his hinder-leg, much higher than the other; to this the beſt mettled horſes are, for the moſt part, more ſubject than others.

It ſeizes them after a ſudden taking of cold, after hard riding, or ſore labour: eſpecially by waſhing him while he is hot, which chills his blood, and ſo benumbs his ſinews, that it will ſometimes take away the ſenſe and feeling of a limb.

For the cure: Take up the hinder vein upon the thigh, and underneath the ſame there lies a ſtring, which you muſt cut away, and then anoint him with butter and ſalt, and he will go well.

Some uſe a particular ointment for this purpoſe, prepared as follows:

Take oil of worm, nerve oil, oil of petroleum, of ſpike, of piece or patch greaſe, of each two ounces; of *London* treacle, four ounces; of hog's greaſe, two pounds; ſet all on the fire, and when they are melted, take them off, and keep ſtirring it till it is cold, and with this anoint the part affected every day, and bind him with a ſoft thumb-band, from the paſtern to the top of the hoof; repeat this for ten days together, rubbing and chafing in the ointment very well for a long time, holding a red-hot fire-ſhovel againſt it.

The keep the parts warm, litter the horſe well, and make the thumb-bands leſs and ſhorter every day, till you perceive the horſe to ſtand on both legs alike, and be recovering: but he muſt not yet be ridden, ſo as to ſweat much, for a month after: and as ſoon as warm weather comes on, put him to graſs in ſome dry paſture, where he may not want water, but let him be taken out again before cold weather comes, and while he is in the ſtable let him be kept warm, and ſo he will be free from the ſtring-halt.

STUB. A ſplinter of freſh-cut under-wood, that gets into the horſe's foot when he runs, and piercing the ſole through the quick, becomes more or leſs dangerous, according as it ſinks more or leſs into the foot.

STUD. A place where ſtallions and mares are kept to propagate the kind, or elſe the word ſignifies the ſtallions and breeding mares themſelves; it is abſolutely neceſſary there ſhould be a ſtud, if you would have an increaſe of the horſe kind; the goodneſs of horſes depend partly on the goodneſs of the ſtud, and their good feeding when they are but young: fine ſtallions, and fine breeding mares, generally produce fine and good colts, which will always continue ſo, if they are well and carefully fed.

Under this head it is not propoſed to ſpeak of any ſort of breed of horſes, but ſuch as are deſigned for labour and draft, and therefore without mentioning thoſe of a great price, and ſuch as are deſigned for the uſe of perſons of the firſt rank, we ſay that a ſtallion for this end ought to have a good coat, be well marked, vigorous, and very courageous: care muſt be had that he have none of the diſtempers upon him that are hereditary, for the foals will certainly be ſubject to the ſame: he ought to be of a docile nature, and he ought not to be made uſe of for covering of the mare before he is ſix years old, for if he is too young he will deceive them.

A good coat is as eſſential to the mares as to the ſtallions; they ſhould be well made, and as near as poſſible to the ſame mein and ſtature as the ſtallion; they ſhould have ſprightly eyes, and be well marked: they ought not to be covered till they are three years old, and then may continue to breed till ten; they ſhould have but one foal in two years, that they may have time to nouriſh and breed them up.

About a month or two before the ſtallion is turned to the mares, he ought to be fed with good hay and good oats, or wheat-ſtraw; and he muſt not be put to any manner of labour, only be walked backwards and forwards, from time to time, for two hours every day; you muſt never give him above twenty mares to cover, unleſs you would deſtroy him outright, or make him broken winded; and he will continue to propagate his kind from the age of ſix to ſixteen years.

The month of *May* is the uſual time wherein mares are to be covered, to the end that they may foal in *April*, for they go eleven months, and as many days over as they are years old: and the reaſon why this month is pitched upon, is, becauſe when they foal the following year there will be plenty of graſs for them, and conſequently they will have milk enough to nouriſh their young.

It need not be wondered at, that in a ſtud methodically managed, the mares fail not to produce foals, ſo much as thoſe which are brought to the ſtallion, without uſing theſe precautions which are neceſſary for ſuch an action; for how many perſons are there, who as ſoon as the mares come from their labour, take and lead them to be covered, by which means they are very often diſappointed: if you would have your mare keep, you muſt ſuffer her to run for about eight days in good paſture, and then let the ſtallion cover her once

once or twice the ſame day, if he be inclined ſo to do; and after ſhe is covered let her be conducted to her paſture, and there continue her for four days, after which you may work her, but with much moderation at the firſt.

It is a thing worthy to be obſerved, and what the countrymen ought poſitively to know, whether the ſtallion he would have to leap his mare, is fed with dry meat in the ſtable, or on graſs in the fields; if he is at graſs, and the mares are fed with dry meat, or if he is fed in the ſtable, and that the mares are at graſs, their mares will run a great hazard of caſting their foals, or not conceiving at all, which will ſeldom happen, if uſed to the ſame manner of feeding with the ſtallion.

Before you ſuffer your mare to be covered, hold her in your hand, and for a ſhort time in the ſight of the horſe, ſo as ſhe may alſo look upon him; this will animate her very much, and cauſe the ſtallion to cover her with the more vigour, and be a means to make her keep the better; to bring about this generation work you ought not to have your mare covered but when ſhe is ripe for it; and in order to which give her a peck of hemp-ſeed for eight days ſucceſſively, morning and evening, and in caſe ſhe will not eat them alone, mix them with her bran and oats, or elſe keep her faſting, that ſo hunger may bring her to eat them without any mixture.

A mare muſt never be carried to be covered, whilſt ſhe gives ſuck to her colt; and that ſhe may laſt ſo much the longer, ſhe muſt not foal, as has been obſerved, above once in two years; but for as much as theſe rules are unobſerved by many, and that they will obſtinately have their mares covered almoſt as ſoon as they have foaled, they ought not to do it till eight days are paſt, and even then they ought to uſe all manner of means that ſhe may have an inclination thereto.

Some perſons in treating of this ſubject, have obſerved that in order to have male colts, you need do no more than to let your mares be covered between the firſt day of the new moon, and the full, and that they cannot fail in their expectations herein, provided the mare has a good appetite to be covered; but M. Chomel makes very ſlight of this notion, and gives no manner of credit to it.

When your mares have been covered, you muſt ſet down the day, to the end you may avoid the inconveniences that may happen when they come to foal, for they often kill their foal, either out of inadvertency, or the difficulty they undergo in foaling, and therefore when the day comes wherein they are to foal, you ſhould narrowly watch them, and ſee whether they want any help to bring forth, either by ſtopping their noſtrils or otherwiſe, making uſe of your hand to facilitate their foaling.

The mare ſometimes foals a dead foal, in which ſhe runs a great hazard of her life, without preſent remedy; and therefore to help her in this condition you muſt bruiſe ſome polypody in a pint of warm water, and make her ſwallow it; and if this will not do, there muſt be a ſort of midwifery practiſed, and the foal pulled from her, not only upon this occaſion, when no part of it is come out, but even when the feet appear.

When the mares have foaled, they muſt need have ſuffered much, and thereby muſt be much abated, and if they are not quite gone you muſt endeavour to keep them, by giving them preſently a ſmall mash of three pints of warm water, wherein you muſt ſteep ſome meal, and into which you muſt throw a ſmall handful of ſalt, and this you are to continue three days, morning and evening, and then turn them into good paſture.

The ſame author exclaims much againſt thoſe who in two or three days after the mare has foaled, put her to work, as if ſhe was then in a condition to bear any fatigue; let them urge what preſſing reaſons they pleaſe, he accounts them murderers of both mare and foal; of the mare by putting her ſtrength to ſuch a trial, and of the foal, who finding not a ſufficient quantity of milk for his nouriſhment, comes on but very ſlowly; and therefore thoſe who would have their mares to be always in a good condition, after foaling, and have the foal grow up to their entire ſatisfaction, muſt make uſe of a quite contrary method; or elſe they ſhould never have their mares covered, unleſs they allow them a month's reſt at leaſt after their foaling.

As to the time of weaning foals or colts, authors differ in their opinions; ſome hold that it ought to be done in the beginning of winter, when the cold weather begins to come on, and about *Martinmas;* others maintain, that they ſhould be ſuffered to ſuck all the winter, and that they will be the better for it. Thoſe who are the beſt ſkilled in ſtuds, embrace the latter opinion without any heſitation, who ſay, that to wean the foals ſo ſoon, is the way to make them unſerviceable till they are ſix or ſeven years old; whereas if you ſuffer them to continue longer with their dams, it will harden their mouths, and conſequently inure them the ſooner to live upon dry food, than when they are too tender; a right management of them in this reſpect, will make them fit for ſervice at three or four years. There are thoſe who hold it proper to let the foals ſuck till they are a year or two old, but this is abuſe, for you are not only thereby deprived of the fruit of the mares, but this practice will alſo make the colts very heavy and ſluggiſh.

As to the method of managing the colts after they are weaned from their dams, as before directed, you are to put them into a ſtable, which ſhould be kept clean, and where the manger and rack is low; you muſt not let them want litter, and contrary to the method practiſed in reference to horſes, they muſt not be tied, and let them be touched as little as may be, for fear of hurting them.

Let them neither want good hay, or bran, which will provoke them to drink, and conſequently make them belly, and let them have oats alſo as uſual. It may be juſtly affirmed, that all thoſe perſons who ſay that oats ought not to be given to colts, for fear it ſhould make them blind, are egregiouſly miſtaken; and ſhould they happen to fall under this inconveni-

ence, when they are fed therewith, the misfortune does not proceed from this food, but from the over hardneſs of the oats which they would chew; and not being able to do it without ſome difficulty, they ſo far extend the fibres which paſs from their teeth to their eyes, that coming at laſt to break, the ſight muſt neceſſarily be damaged thereby; and for the truth of this, you need only grind the oats a little, and give it them, and you will find they will be in a good condition, and have as good eyes as any in the world.

What has been here advanced, will appear almoſt extraordinary to ſome perſons of the like ſentiments with thoſe we have met with in the world, who when they have weaned their colts, content themſelves to keep them day and night at graſs, thinking this ſort of nouriſhment will be ſufficient to make them grow finely, and be fit for ſervice in due time; but they very much impoſe upon themſelves, as they would do upon others; for fatal experience has ſhewed them, though they have not owned their miſtakes, that theſe colts will never be ſo ſtrong for draft, or otherwiſe, and will not do as good ſervice as thoſe that have been fed with corn.

It is true, that when colts feed upon graſs, their teeth are uſually ſet on edge, and for that reaſon they eat their oats with difficulty, but this is no reaſon they ſhould be deprived of it: you need do no more than to grind them as aforeſaid, and to let them have the oats ſo at the uſual hour: again this work will be of no longer duration than until their mouths are hardened, which will not be above four months, when, by degrees, they may be uſed to eat the oats whole.

Let ſuch perſons who have hitherto been guilty of theſe miſtakes amend them, as being quite contrary to the good of their colts; it is true, graſs is good for them all the ſummer long, but you muſt not omit to give them corn; and when winter comes, they muſt be kept warm in the ſtable, and obſerve the directions aforeſaid.

As to the manner of bringing up colts to work, you are in the firſt place to conſider, that ſo much cannot be expected from a young colt, as from a horſe that has been uſed to labour: the firſt is naturally apt to refuſe you that which he does not know you require of him; whereas the other complies, becauſe he underſtands your meaning; ſome with as little underſtanding as the colts themſelves which they manage, uſe them very roughly to bring them to obey them; but others with more prudence, teach them gently what they would have them learn, and it is this mild way that will do to bring them to.

The firſt time of harneſſing them, keep them in, for fear if they ſhould get looſe, they might uſe ſome effort to drag away the load, which muſt be heavy; for ſhould the ſame be too light, you may have reaſon to be apprehenſive, leſt they ſhould draw with too much precipitation; having thus harneſſed him three or four times, he will begin to come to.

In the next place make the colt draw a ſmall load but a little way, and never let go the halter, and thus taming him a little one day, more the next, and ſo on, you may manage him ſo, that he ſhall be entirely accuſtomed to the work.

A good ſervant who is dextrous at his buſineſs, whether it be at ploughing or cart, after he has made his colts feel his whip ſeveral times, will afterwards fright them more with his voice, than with blows, and will be careful never to over-burthen them, and make them draw beyond their ſtrength, eſpecially at the firſt, for it ſpoils them at once; whereas by giving them breath, they will go on well, and perform regularly the work they are put to; that is, ſuch works or drafts as are proportionable to the age and ſtrength of the colts.

Laſtly, it will be neceſſary in the breeding of your horſes, to conſider the commodiouſneſs of the place, and the paſtures where your horſes, *&c.* are to run; for thoſe that breed them in a place unfit for it, loſe their money and their pains, and never will have good horſes: the ground muſt not be too rank of graſs nor too bare, but a firm and ſweet ſoil, ſituate in a clear and wholeſome air, where there are hills and running waters, with quick-ſets and ſpreading trees to ſhelter them from the wind, rain, and ſun; nor muſt they be continued always in the ſame paſtures, but often removed into freſh, obſerving ſtill to put them into the ſhorteſt feedings in ſummer, and the richeſt in winter; at which time of the year they muſt have a hovel, or hay-rick, or ſome convenient place to ſhelter them from the weather.

Further directions in relation to a ſtud for other ſtrains: the place appointed for this purpoſe muſt by all means be diſpoſed with hills and vallies, that the colts or fillies may be the better uſed to the diverſities of ground and feed: alſo an eſpecial regard ought to be had to the health of all breeding mares; for ſome diſtempers are hereditary, and the offspring from ſuch will neceſſarily receive it, as well as the imperfections of either ſire or dam, in their colour, ſhape, or merit.

There is nothing deſtroys or injures a race of any kind, ſo much as the want of due care, in providing the principles from which the offspring ſhould come.

When a ſtallion is to be choſen, all men of underſtanding in horſe-fleſh recommend beauty of limbs, good courage, and the age to be about five years for the horſe, and the ſame perfections in a mare; but ſhe may be a year younger than the horſe.

Some depend much upon colours; as for example, thoſe that are black, they ſay are of a hot and fiery temper and diſpoſition: thoſe of a ſorrel colour are more wanton, and diſpoſed to venery: the cheſnut and brown bay, are reckoned to have ſtrength and ſpirit: the white are always reckoned tender, and as much ſubject to venery as the ſorrel, and for this reaſon it has frequently been obſerved, that in coupling of horſes with mares of theſe colours, the mares have ſlipped or failed in their productions.

As to greys, it has been obſerved, that thoſe which tend the moſt to black, are ſtronger than the brighter greys.

There are beſides theſe, other colours in horſes, as the

the roan, which ſeems to be the offſpring of the bay and white, or the bay and grey.

The ſorrel and white, ſeem to be the authors of the dun and cream colour; and as for thoſe horſes which are called flea-bitten, or ſtrawberry, they probably proceed from a coupling between a bright grey and a bay, and perhaps have ſuffered much in their younger time by ticks, eſpecially if they have been neglected upon the foreſt, among woods, or have not been taken up till they were three years old.

There are alſo ſome horſes mottled or red, (commonly called pye-bald) either black and white in ſpots, or cheſnut and white.

How this accident happens, is one of the moſt curious queſtions among philoſophers, and a certain ingenious naturaliſt hath attempted to reſolve this nice queſtion; but as from one caſe in nature nothing can be determined, he therefore has recourſe to other ſubjects, which ſeem to him to be nearer allied, and inſtances in the ſeveral caſes following:

A variegated or ſtriped plant, he takes to be ſomething like the pying or ſpotting of a horſe, or any other cattle, and that it may (as ſome imagine) very probably proceed from the like cauſe; or the white in the feathers of fowls.

The queſtion then is, whether the white in the hairs of beaſts, or feathers of fowls, is not a ſign of weakneſs, as the colour certainly is when it appears in the leaves of plants?

If it be, then all horſes or cows, that happen to be of a white colour, would be weak in their joints, or be ſomewhat diſtempered from ſome indiſpoſition in the bodies of their progenitors. But this is not yet determined.

It is therefore neceſſary to be careful in examining into the deſcent of a horſe and mare, from which you deſign to have a breed.

One thing, which he thinks might come near towards a ſolution of this queſtion, would be to inquire into thoſe families where black men have coupled with white women, or white men coupled with black women, in order to know if the father was black, whether the child was of that colour, or whether the child was black, if the mother was of that colour.

And, moreover, whether the croſs ſtrain will not produce ſometimes white, and ſometimes black children; or ſometimes thoſe of a tawny colour or mulattoes; as alſo it would be requiſite to know, whether black children in two or three generations, do not produce children of a tawny or olive colour; or whether the offſpring of the blacks with the whites, inſtead of wool, do not bring long black hairs on their heads, or perhaps white hairs, and a tawny complection.

He imagines that the people of *Barbary*, and of all the coaſts of *Africa* lying oppoſite to *Europe*, are of the olive colour, from the coupling between the *Moors* and *Europeans*, while they were endeavouring to make their progreſs into *Europe*, but in *Spain* eſpecially; for there are found upon all the *African* ſide of the *Mediterranean*, a people of the mulatto complexion, ſome of them with very black beards and hair, and others very white, as moſt people about *London* obſerved inſtances of in the ambaſſadors and their retinue, in the year 1728.

One remarkable ſubject relating to the caſe is, that ſome years ſince a perſon was brought over from the *Weſt Indies*, who was pyed in his ſkin white and black, and it is ſuppoſed that this man was the offſpring of parents who were of different colours, the one white and the other black.

But to take a little further notice of the various colours in animals, ſuch as the mottlings and ſpottings of all creatures in their hair, feathers, *&c.* they ſeem to be occaſioned by croſs couplings. For (ſays this author) I know a gentleman near *Farnham* in *Surry*, who had a breed of white kine for many years, without any croſs colour mixing with them, and theſe to this day produce calves of the ſame colour.

And another gentleman had a breed of white fowls for about forty years, that has not once ſhewn the leaſt diſcoloured feather.

He informs us likewiſe, that himſelf had a breed of white pheaſants, which till they came to be mixed with pheaſants of the common colour, always produced poults of a white feather; and as ſoon as they brought young ones from the croſs couplings, the breed was altered, and the feathers of the young fowls did partake of the common colour, as well as of the white; *i. e.* they were generally mottled or pyed, unleſs now and then all white, according (as he ſuppoſes) as the white pheaſant cock had been the impregnator of an egg, which he ſuppoſes he got at with ſome difficulty; for the common pheaſant cock was maſter of the pheaſant pen, and uſed commonly to drive the others from the pen.

Again, thoſe who breed *Canary* birds know very well, that when they begin with a white cock and hen, they will not have birds of any other colour, unleſs they couple thoſe with others of the common colour.

In like manner in warrens firſt ſtocked, either with all white or all black rabbits, the breed will be accordingly either all white or all black, unleſs they come to a croſs coupling.

So alſo pigeons which are of a white feather, will produce a breed of the ſame colour conſtantly, unleſs they couple with pigeons of other colours, and then they will produce a mottled race, or ſuch as are of a mixed colour.

The ſame author tells us, that a gentlemen of great curioſity and candour, aſſured him, that for more than eighty years, there had not been any other than white horſes belonging to his family, except ſuch as were bought in from other breeds.

That the originals of his race were a white horſe and a white mare; which at the time of their coming into his ſtud, were accounted great beauties.

And that a gentleman, a neighbour to the foregoing, had his ſtud furniſhed, many years before, with horſes and mares of a black colour, and that keeping his breed conſtantly without mixture of any other colour, the offſprings are all black like the ſire and dam.

The ſame author inſtances in the variegated or ſtriped

jeſſamin among plants, that if the white is on the edge of the leaf, that colour and diſpoſition will never be loſt in any that are raiſed from it, but every one will be like the original plant.

Again, that if the common jeſſamin happens to be ſtrained with yellow on the leaves, or pyed or ſpotted with that colour, (which is what the gardeners call a blotch or bloch) all the deſcendants of that plant will be the ſame.

He likewiſe informs us, that a certain curious gentleman ſtocked a pond with tench, partly from a running water, and partly from a fenny water, and in ſome courſe of time he had a mottled breed, between the black and the gold colour; the river tench being generally of a bright and golden colour, and thoſe of the lakes of a darker colour, and tending to black.

An author of good credit, treating of the mixture of breeds in cattle, and eſpecially in horſes, adviſes, with a good deal of reaſon, to take care of the good qualities of the horſe and the mare.

He ſays, that an ill-bred horſe may beget a colt that may have a fair colour and ſhape, appearing beautiful; he may alſo be ſtrong and vigorous, but of a vicious diſpoſition, which may render him incapable of ever being brought to rule, without half deſtroying him.

Sometimes the fault of a colour is corrected by a ſort of dyeing or ſtaining, which art ſome of our jockies have got, eſpecially upon greys, whites, and duns; and ſome noblemen who have employed ſome country people to buy them horſes of a certain ſtandard in body, colour and mark, to match with their ſets, did in a few months, when the horſes had ſhed their coats, find greys and other colours inſtead of blacks.

It is true, that we cannot ſay that the dyeing the hair of horſes will do the horſes themſelves any harm (for that they have been healthful and ſtrong, long after they received their original colours) any more than that chymical water uſed by perſons to change the natural colour of the hair from red to black (which is frequently practiſed) does injure their heads.

As to the choice of a ſtallion, a perſon of great ſkill ſays, that the dapple bay, the bright bay, and the dapple grey, are to be preferred; but does allow of a horſe of a pure black, provided he has a white ſtar, and a white foot; but in the judgment of others, he ſhould be all of one colour.

We find in many caſes, that horſes of a bright bay colour, with a black mane and tail, are good as well as beautiful, and theſe have commonly the tips of their ears, and the extreme parts of the legs, black: it is alſo common for a dapple bay to have a white mane and tail, with the former mentioned extremes white, ſuch as the tips of the ears, and the extreme part of the legs: but for other coloured horſes, except the dun, we ſeldom find their manes and tails of a colour different from that of the body; but in a dun horſe the long hair in the mane and tail is commonly black, and for the moſt part there is a black liſt down the back, which is not a little remarkable, as it is not obſerved in any other creature except the aſs or mule, that I know of.

In a horſe indeed it is only a plain ſtraight liſt, but in the aſs there is always a croſs ſtroke of black over the ſhoulders, ſo that if the ſkin was to be opened and ſpread, the black would exactly repreſent the figure of a croſs, as it is repreſented in paintings or carving for a crucifix.

Some pretend to tell us, as to the croſs upon an aſs's ſkin, that aſſes were not thus marked before the Chriſtian æra, and that none are without the ſign; but upon what good authority they aſſert this, I know not.

Some are of opinion that the black liſt down the back, is a token of ſtrength, becauſe the aſs that is marked with it is accounted the ſtrongeſt creature in the world among animals, according to his ſize.

And for this reaſon aſſes are uſed for carrying heavy burdens, and drawing heavy loads.

If this liſt then is a mark of ſtrength in an aſs, we may well ſuppoſe it no leſs ſo in a horſe; and likewiſe we may judge it is alſo a ſign of ſtrength in mules, and as they are produced by couplings between the horſe and the aſs, we may well ſuppoſe that this liſt, generally ſpeaking, comes from the aſs.

In the choice of a ſtallion, great regard ſhould be had to his age, which ſome ſay ſhould not be under five, nor above fourteen or fifteen when he covers a mare; for during that time a horſe is in full ſtrength, and it is therefore reaſonable to conclude, that colts got by him in his prime, will likewiſe ſhare his vigour.

Indeed it is no unuſual thing in ſeveral parts of *England*, to let a horſe cover a mare at two or three years old, but ſuch couplings ſeldom ſucceed well; for in the firſt place they are apt to fail or miſcarry, if either the horſe or mare is ſo very young, and ſometimes the mare is entirely ſpoiled for breeding; or if ſhe does happen to bring a colt or filly from ſuch a coupling, it will never be either of large ſtature, or of great ſtrength.

Nor ſhould horſes be put to cover mares till they are ſix years old, leſt the colts got by them ſhould be liable to the ſame imperfections as thoſe that are got by too young horſes.

Mares indeed will breed till thirty-five years of age.

An horſe that is kept for a ſtallion, will be fit to cover mares the longer, the leſs ſervice of that ſort he is put to.

A certain gentleman affirmed, that a ſtallion of an extraordinary ſort, which his family had kept above thirty years to ſerve only about four or five of his own mares, was then in as good plight as ever, while other ſtallions about him, which had been let out to any body that wanted them, were incapable of this ſervice at twenty years with certainty, and that if the leap was certain, the colts ſurely failed in their eyes.

STUMBLING IN A HORSE, comes either naturally or accidentally, and is known by the ſight and feeling, by reaſon that the fore-legs are ſomewhat ſtraight, ſo that he is not able to uſe his legs with that freedom and nimbleneſs he ſhould. The way to cure him is, to cut him the cords; that is, to make a ſlit upon the top of his noſe, and with your coronet raiſe up the great ſinews; then cut them aſunder, and heal them up again with ſome good ſalve, whereby he may

may have the uſe of his legs ſo perfectly, that he will ſeldom or never trip more. Such as comes accidentally, is either by ſplent or wind-gall, or by being foundered, pricked, ſtubbed, gravelled, ſinew-ſtrained, hurt in the ſhoulder, or withers, or by careleſsly ſetting him when hot, which makes him go very ſtiff, which ſtiffneſs cauſes ſtumbling.

SUMPTER-HORSE. A horſe that carries proviſions and neceſſaries for a journey.

SUPPLE, to ſupple a horſe in the manage, is to make him bend his neck, ſhoulders and ſides, and to render all the parts of his body more pliable.

SURBATING IN DOGS, a malady with which they are often affected, being ſurbated in their feet, by running long in hot weather upon hard, dry, uneven ways, among rocky and ſharp gravels.

For preventing this, their feet are to be frequently examined, and if their feet are become ſore, they ſhould be waſhed with beer and freſh butter lukewarm, and then a ſort of ſalve made of young nettles chopped ſmall, and pounded into an ointment, ſhould be bound to the ſoles of their feet.

Alſo ſoot finely powdered, and incorporated with the yolks of eggs, and applied to their feet, is very good, or the juice of mouſe-ear is alſo very good for the like uſe.

SURBATING IN HORSES, an imperfection.

An horſe is ſaid to be ſurbated, when his ſole is worn, bruiſed or ſpoiled, by travelling without ſhoes, or being badly ſhod; ſometimes it comes by a horſe being travelled too young, before his feet are hardened, which often cauſes foundering; ſometimes it is cauſed by the hardneſs of the ground, or the horſe's lifting up his feet high; and thoſe horſes that are flat hoofed, have their coffins ſo tender and weak, that they cannot avoid being ſubject to this diſorder.

The ſigns of this imperfection are, that the horſe will halt on both his fore-legs, and go ſtifly and creeping, as though he were halt foundered.

As for the cure: take a couple of new-laid eggs, prick the horſe's fore-feet well, and break the eggs raw into his ſoles, then ſtop them with ox or cow dung, and he will be well the next morning.

Or, melt ſugar candy with a hot iron, between the ſhoe and the foot, and when it is hardened, take nettles and bay ſalt ſtamped and lay to his ſoles.

Or, you may firſt pare his feet to cool them, and ſtop them with bran and hog's greaſe boiled together, very hot, covering the coffin round with the ſame; or elſe ſtop them every night with cow-dung and vinegar, melted together.

Or, firſt pare the hoof, then open the heels wide, then take a good quantity of blood from the horſe's toes, and having tacked on a ſhoe ſomething hollow, then roll a little fine cotton-wool, or bombaſt, in frankincenſe, melt it into the foot, between the toe and the ſhoe, with a hot iron, till you have filled up the orifice, out of which the blood was taken, then melt half a pound of hog's-greaſe, and mix it with wheat bran, making it as thick as a poultice and ſtop up his foot with it, as hot as he can endure it, and then cover it with a piece of an old ſhoe, and ſplent it, cauſing the horſe to ſtand ſtill for three or four days, and if you ſee occaſion, renew it till the cure is perfected.

SURFEIT IN A HORSE. A ſurfeit is nothing more than the effect of ſome new diſeaſe ill cured; and therefore what is called a ſurfeit in horſes, is very different from the diſeaſe of the ſame nature in the human body; the latter being the beginning of a diſeaſe, and the former the relict or remains of it.

When a horſe has a ſurfeit, his coat will ſtare, look of a ruſty colour, and even dirty, though the greateſt pains have been taken to keep him clean. His ſkin will be covered with ſcales and dander, appearing like meal among the hair: and when cleaned off will be followed by a continual ſucceſſion of the ſame matter, occaſioned from the common perſpiration being obſtructed. Some horſes will be covered with a kind of dirty ſcab, others with a moiſt ſcab, attended with heat and inflammation, and the humour ſo very ſharp, and cauſing ſo violent an itching, that the creature is inceſſantly rubbing himſelf, and by that means makes himſelf raw in ſeveral parts of his body. Some horſes have neither ſcales, dander, or ſcabs; but look dull, ſluggiſh, and lazy; ſome are hide bound; and others afflicted with flying pains, and a temporary lameneſs. In ſhort, the ſymptoms are various, and almoſt as numerous as thoſe of the ſcurvy itſelf.

As the ſymptoms are various, ſo are alſo the cauſes: ſome are ſurfeited by high feeding, and a want of proper exerciſe; by which a bad digeſtion is produced, and ill humours generated. Some are ſurfeited by unwholeſome food; ſome by hard riding; ſome by drinking cold water when they are hot; and others by bad and improper phyſic.

The firſt operation in curing ſurfeits is bleeding, when three or four pints ſhould be taken away; after which the following purge ſhould be given:

Take of ſuccotrine aloes, one ounce; of gum guaiacum in powder, half an ounce; of powder of myrrh, and diaphoretic antimony, of each two drachms: make the whole into a ball, with a ſufficient quantity of ſyrup of buckthorn, and liquorice powder. Or,

Take aloes, ſix drachms; gum guaiacum, half an ounce; honey, or treacle, enough to make a ball.

One of theſe balls may be given once a week for ſome time; and in the intervals an ounce of the following powder in his morning and evening feeds:

Take of cinnabar of antimony in fine powder, half a pound; of crude antimony and gum guaiacum finely powdered, of each four ounces; mix the whole well together, and put an ounce of it into his feed as before directed.

If the horſe be of ſmall value, inſtead of the above powder, common antimony and ſulphur may be given in his feeds, and will have a very good effect.

Sometimes common purges are ſufficient to perform a cure, eſpecially if the ſcabs are rubbed off with the following ointment:

Take of quickſilver, half an ounce; and rub it in a mortar, with half an ounce of turpentine, till the quickſilver

quickſilver entirely diſappears, adding by degrees one pound of hog's lard, and continuing the rubbing till the whole is incorporated.

But if the horſe be of value, I would adviſe the practitioner to purſue the firſt method; though it will be often neceſſary, even then, to have recourſe to the above ointment, which will cauſe the ſcabs to peel off, and cleanſe his ſkin. But care muſt be taken to keep the horſe dry when it is uſed; give him only warm water while the ointment is applied, which ſhould be once in three days; and when the horſe is entirely free from ſcabs, a doſe or two of phyſic ſhould be given him.

When the ſcabs are moiſt, and a ſharp humour flows from them, it is properly a running ſcurvy: and the diſeaſe muſt be cured like the former, by bleeding and purging, and then uſing external medicines of a repelling quality, particularly vitriolic and aluminous waters. But I would have every practitioner, into whoſe hands this uſeful work may fall, to be upon his guard againſt ſuch dangerous methods of practice; and after bleeding, as already directed, to give the following purge:

Take of lenitive electuary, and of Glauber's ſalts, of each four ounces; of freſh jalap in powder, one drachm: make the whole into a ball, with a ſufficient quantity of ſyrup of marſhmallows, liquorice powder, and forty drops of oil of amber, and give it the horſe in a morning faſting, after his body has been well opened with ſcalded bran.

When you have given the horſe three or four of the above balls, mix two ounces of liquorice powder, to make it into a ball; and nitre, with a ſufficient quantity of honey, and give him one every morning for a fortnight; which in all probability will entirely finiſh the cure: Or,

Take diapente made with the roots of ariſtolochia of both ſorts, fine myrrh, bay-berries, ſhavings of ivory or hart's-horn, and the roots of gentian, of each two ounces; dry them gently, powder them finely, and keep them in a glaſs bottle in a dry place.

Take of this three quarters of an ounce, and give it the horſe in a quart of ſtrong beer, and add to it half an ounce of *London* treacle, and four ounces of freſh butter; let it be milk-warm.

SWAIN-MOTE } a court that ſits about matters of
SWANI-MOTE } the foreſt, held thrice a year before the verderors as judges, and as requiſite in a foreſt as a court of pie-powder in a fair.

SWAN. A known royal fowl, concerning which there is a law, that whoever ſteals their eggs out of the neſt, ſhall ſuffer impriſonment for a year and a day, and be fined according to the king's pleaſure.

Where they build their neſts they muſt be left undiſturbed.

Theſe birds are very uſeful for keeping ponds and rivers clear of weeds, upon which and graſs they only feed, and not upon fiſh, as ſome imagine; and are neither chargeable nor troubleſome to keep, if they have but room enough.

They commonly lay ſeven or eight eggs, but ſeldom take pains to hatch them all, four or five being their uſual number.

The hen ſits brooding about ſix weeks, and if during that time oats be ſet once a day in a trough near her (in caſe ſhe has not plenty of weeds juſt at hand) it will prevent her leaving her eggs: as alſo if you ſet up ſome boughs, or other ſhelter, to ſcreen her from the heat of the ſun.

SWAYING OF THE BACK IN HORSES, an injury that may be received ſeveral ways:

1. By ſome great ſtrain, ſlip, or heavy burthen.
2. By turning him too haſtily round, *&c.*

The pain uſually lies in the lower part of the back, below his ſhort ribs, and directly between the fillets.

The malady may be perceived by the reeling and rolling of the horſe's hinder parts in his going, he being then ready to fall to the ground by his ſwaying backwards and ſidelong; and when he is down, he cannot riſe but with great difficulty.

The cure: Take two ounces of the fat of the fruit of the pine-tree: of *Olibanum* four; of roſin and pitch as many; one of bole ammoniac, and half an ounce of dragon's blood, which muſt all be well incorporated together, and laid plaiſter-wiſe all over the reins of his back, where you are to let it remain till it falls off.

Another good remedy for theſe infirmities, is to adminiſter ſome ſtrengthening things inwardly; as common turpentine made into balls, with the powder of bole-ammoniac, and that of the dried leaves of clary; and to apply outwardly, all over the reins of his back, a charge of *oxicroceum* and *Paracelſus* melted together, or colewort in ſallad oil made thick, a poultice with the powder of bole ammoniac and bean-flour:

Or, take two pounds of blood from the veins, then chafe his back with a warm hand, and apply two ſcarifying cupping-glaſſes, one on each ſide, where the pain ſeems chiefly to lie, or where the extravaſated blood is lodged.

Then put the horſe into a frame and hang him up, or by ſome other way incloſe him in grates, that he may not be able to move his body; and thus let him be kept for five or ſix weeks; then mix equal quantities of ſpirit of wine, and oil of turpentine together, by ſhaking it in a vial till it looks white like milk upon his back, rubbing it in. In the next place apply the red honey charge, adding to it half an ounce of galls at every application; applying a freſh charge every time, without taking away the former.

Or, inſtead of the honey charge, you may uſe the ointment of *Montpelier* for two or three days, and then proceed to fomentations; but if the horſe voids blood ſtill at the mouth and noſe, give him of ſal polycreſtum and juniper-berries, of each an ounce, pounded to powder, in a pint of red wine every day, for eight days ſucceſſively; and for the laſt four days give him an anodyne glyſter, after his fundament has been firſt raked:

Or, if none of the former methods ſucceed, make two or three inciſions with a large iron ſlice, and ſeparate the ſkin from the fleſh on the reins, about the breadth of half a foot on each ſide the back-bone, till you come to the hip-bone.

Stop the holes with ſlices of hog's-lard, about the thickneſs of half-a-crown, ſo as to hinder the ſkin from ſticking to the fleſh.

Then

Then rub the ſeparated ſkin with an ointment made with equal parts of populeon, and ointment of marſh-mallows, and cover all the part with a lamb-ſkin, the woolly ſide inwards, laying a ſaddle-cloth over that.

Then hang the horſe in ſuch a poſture that he cannot ſtir, and give him a clyſter of ſal polycreſtum every night, and a pint of wine every day for eight days, and after forty-eight days you may uncover the ſore, and if you find it to be much ſwelled, it is in a fine way towards a cure.

Then take out the lard, and preſs out the reddiſh matter, and put in a piece of freſh lard, chaſing all the part with the ointment above-mentioned; then cover the ſore as before, dreſſing it after the ſame manner for twelve days, once every forty-eight hours: and inſtead of the lard, dreſs it with the duke's ointment every day, till the ſore is healed.

You may take away the lamb-ſkin twenty-two days after the beginning of the cure, and ten days after you may allow the horſe to ſtir a little.

Inſtead of ſeparating the ſkin, you may give him the fire (which is an eaſier remedy) piercing the ſkin with a red-hot iron, and making holes at the diſtance of an inch one from another, all over the ſame; then apply a good plaiſter, and two ſheets of paper over it: hang the horſe up for a month, and when the ſcales are fallen off, dreſs the ſores with the duke's ointment, and proceed as before.

To SWEEP (in Falconry) is uſed of a hawk who wipes her beak after feeding, and therefore they ſay ſhe ſweeps.

SWELLED LEGS IN A HORSE, an infirmity he is ſometimes ſubject to, by hard riding or much labour, when he is too fat, or careleſsly put to graſs, or ſet up in the ſtable too hot, whereby he takes cold, which cauſes the blood, greaſe, and humours, to fall down into his legs, and to make them ſwell.

Sometimes it comes by long ſtanding in the ſtable, when the planks where his fore feet ſtand, are higher than where his hinder legs are; which uneaſy poſture makes the blood ſettle in the hinder legs, whereby they are unhappily brought to ſwell.

There are ſeveral preſcriptions for the cure of this malady.

Some uſe nerve oil, black oil, ſoap, and boar's greaſe melted, and anoint the place therewith; or elſe bathe his legs with butter and beer, or with butter and vinegar melted together.

Some bathe them in water in which ſage, mallows, and roſe-cakes have been boiled, putting in butter and ſallad oil; or boiling roſin, frankincenſe, and freſh greaſe, of each a like quantity, then ſtrain it, and uſe it once a day, as there is occaſion.

You may alſo waſh the horſe's legs in cold fountain water, or the horſe may be left every day to ſtand up to the knees in running water, till the ſwelling is aſſuaged.

Others bathe the horſe's legs with ſheep's foot oil, train oil, or urine and ſalt petre mingled together, and wetting hay ropes in the ſame liquor, roll them from the paſtern to the knee; but care muſt be taken not to bind them too hard.

Others boil primroſes, violet-leaves, and ſtrawberry-leaves, of each a handful, in new milk, adding nerve-oil, petroleum, and populeon, of each an ounce, and anoint the horſe with this for four or five days ſucceſſively.

Others boil pitch, virgin's-wax, roſin, galbanum, myrrh, zedoary, bdellium, *Arabian* ſtorax, and the juice of hyſſop, and when it is cold, they add bole ammoniac and coſtus finely powdered; theſe being well incorporated with the other ingredients, they boil them all over again, and when they uſe it, they ſpread it on a plaiſter and wrap it about the ſwelling, letting it remain there till it drops off of itſelf.

But when a horſe's legs are much ſwelled, becauſe of the ſcratches, boil a handful of bay-ſalt, a quarter of a pound of ſoap, with a good quantity of ſoot, and a good handful of miſletoe chopped, in a quart of urine or more, and with this bathe his leg, very warm, twice or thrice a day, and wetting a cloth with it, wrap it cloſe about his legs, and it will aſſuage the ſwelling. *See* REMOLADE.

SWELLED PIZZLE IN HORSES, is a kind of hardneſs which proceeds from the part being bruiſed by riding, and is cured in the following manner:

Take holly-hock, houſe-leek, and a little plantane, ſtamped together with freſh butter, and anoint his pizzle with it twice a day, and if the pizzle be ſore, you muſt caſt him, and waſh his ſheath and pizzle very well with white-wine vinegar; and if there be any cankers, or holes in the yard, then you muſt put ſome burnt alum to the vinegar, and waſh it very well; and he will mend without fail in three times dreſſing.

SWELLED VEINS; that which the *French* call *varice*, is a crooked vein, ſwelling with corrupt blood in the temples, belly, or legs of a horſe.

The cure: Open the ſkin of the horſe, and burn it with a hot iron; then rub and chafe it well for ten days with milk and oil, and if the diſeaſe is not removed, let him blood, and this will effect the cure.

A Poultice to diſſolve a Swelling in Horſes.

Take garden orrice roots, and white lily-roots, of each an ounce; marſh-mallows, pellitory, penny-royal, origanum, calamint, and rue, of each a handful; chamomile, mellilot, and elder-flowers, of each half a handful; green anniſeeds, common fennel, and cumin-ſeeds, of each half an ounce; boil all theſe together to a maſh, in water and white wine vinegar; then pound them in a ſtone mortar to an even ſmooth maſs, adding to them the meal of lupines, and beans, of each an ounce and a half, oil of chamomile an ounce and a half, oil of orrice the ſame quantity; mix them well in the mortar, and then heat them again, and apply this to the part affected, in greater or leſſer quantity, according to the heat of the part.

This is a medicine extraordinary uſeful in all tumours,

mours, and is the more neceſſary, ſince tumours or ſwellings are ſo frequent in horſes, by reaſon of hurts and bruiſes they are ſo often liable to, which if not timely taken care of, and that judiciouſly, do degenerate into incurable fiſtulas, and cancerous ulcers; for it is allowed by all ſurgeons, that the ſafeſt way to cure all ſwellings (to which they give the name of tumours) except ſuch as are malignant, is by diſſolving them, if poſſible, which is the moſt ſucceſsful, and which ought to be uſed as ſoon, and as much as poſſible; but if that cannot be done, then you ought to endeavour to ripen them as ſoon as poſſibly can be.

Another for mollifying, ſoftening, ripening, and bringing to ſuppuration, a Swelling.

Take the roots of marſh-mallows, and thoſe of white lilies, of each a quarter of a pound; the leaves of groundſel, common mallows, brank-urſin, and violet plants, of each a handful; the flour of linſeed and fenugreek-ſeeds, oil of lilies, and gooſe fat, of each three ounces; waſh the roots and ſlice them, then boil them in water, and after ſome time put in the leaves, and boil all till the whole maſs becomes perfectly tender and ſoft: then ſtrain out the decoction, and pound the ſubſtance that remains in a ſtone mortar, with a wooden peſtle, till it comes to be a pulp; then put both the decoction and pulp into a ſkillet, mixing with them the flour or meal of ſenna-ſeed, and fenugreek ſeed, oil of lilies and gooſe fat; boil all together over a moderate fire, ſtirring the ingredients from time to time, till the maſs is become of a ſufficient conſiſtence.

This is a very uſeful medicine, becauſe dangerous conſequences do frequently happen to ſwellings, or tumours, in horſes, that will not be diſcuſſed, that is, not go away of themſelves, or that ſuch a poultice has been wanting to bring them to a ſpeedy ſuppuration.

For if a ſwelling or tumour that cannot be diſcuſſed, ſhould remain too long before it be brought to a ſuppuration or ripening, it generally putrefies and turns to a fiſtulous ulcer, which, very rarely, admits of a cure.

SWINE PIPE. A bird of the thruſh kind.

SWINE. *See* MANAGEMENT.

TAIL. The train of a beaſt, fowl, fiſh, &c.

TAIL OF A HORSE, ſhould be firm, the dock or ſtump of it ſhould be big, ſtiff, and placed pretty high; thoſe which have it ſet too low have ſeldom good reins; on the other hand, ſome of them have it ſet too high, which make their buttocks appear pointed and unſeemly.

A great many affirm, that the dock of a horſe's tail ſerves to point out his ſixth or ſeventh year, pleading that at the time the black ſpeck, or eye of a bean, begins to diſappear, and the cavity to be filled, the dock of the hair becomes longer, by reaſon that the vigour of the young years begins to abate, and nature has not ſtrength enough to nouriſh and keep up the joints or knots that form the dock, ſo that when the horſe is ſix years old, one of theſe joints ſlackens and begins to fall down, and a year after another deſcends in like manner.

But this relaxation or down falling, happens ſooner to ſome than others, according as they have been well or ill kept, with reference to feeding, houſing, and working. Accordingly we find the marks of a horſe's age, taken from the tail, are ſo erroneous, that we ſee a great many jockies maintain, that the firſt joint deſcends when he is nine, and the ſecond when he is ten years old.

TAPASSANT (Hunting term) uſed of a hare when ſhe is lurking or ſquatting.

To TAPPY (with Hunters) to lie hid as a deer may do.

TEAL. A delicate fowl for the table; but thoſe that buy them ought to be very careful in chuſing them; to know them, obſerve if the birds feel thick and hard upon the belly, if ſo they are fat; but if thin upon the belly, lean; if they are dry footed, they have been long killed; but if limber footed, new killed.

TEDDER, } a rope wherewith the leg of a horſe is
TETHER, } tied, that he may graze within a certain compaſs.

TEETH. Are little bones in a horſe's jaws, which ſerve not only to facilitate the nouriſhment, but likewiſe to diſtinguiſh the age of horſes.

A horſe has forty teeth, including the tuſhes, which are diſtinguiſhed as follows:

Twenty-four of them are called grinders, which are placed at the bottom of the mouth, beyond the bars, twelve on each ſide of the channel, *viz.* ſix above, and ſix on each ſide.

Theſe teeth continue, and do not fail to give place to new teeth in their room, ſo that they are of no uſe in diſtinguiſhing a horſe's age.

However, they are ſubject to wolves teeth.

With reference to the other ſixteen, twelve of them are called in their infancy, milk or foal teeth, and the remaining four go by the name of tuſhes.

The twelve foal teeth are ſhort, ſmall, and white teeth, ſeated on the fore part of the mouth, ſix above, and ſix below.

Theſe change and caſt, to give place to others; which, in proceſs of time, become long, large, and yellowiſh.

Theſe new teeth are diſtinguiſhed by the different names given them, according to their putting forth, and it is the manner of their coming forth, that gives us to know the firſt years of a horſe.

Now of theſe twelve, four are called nippers, four are called middling teeth, and four go by the name of corner teeth.

The four nippers are ſeated on the fore part of the mouth, two above, and two below.

When a horſe has put forth theſe, we conclude that he goes from two and a half to three years.

The middling teeth are placed near the nippers, or gatherers,

gatherers, one above, and one below, on each ſide of the jaws.

They come out and appear between three and a half and four years.

The corner teeth are placed yet more forward in the mouth, one above and one below, on each ſide of the jaws.

Theſe begin to ſhoot between the fourth and the fifth year, and are got above the gum at five years.

When ſurmounted the gum at that age, they become hollow, and mark commonly till ſeven or eight years.

By marking we mean, that in the hollow or cavity of the corner teeth, a little black ſpeck is formed; which, from its reſemblance, we call the bud or eye of a bean.

But when the horſe paſſes ſix, the cavity begins to fill, and the black mark diſappears by degrees; yet this diminution of the cavity and the mark, continues from ſix till ſeven and a half.

At eight years the cavity is filled up, and the black mark gone, and in regard that the tooth is then full, even as if it had been ſhaved, we then ſay that the horſe has razed; which happens a little before the eighth year, and after that the horſe does not mark; ſo that the ſureſt knowledge of his age is then took from his tuſhes.

The tuſhes are placed beyond the corner teeth upon the bars, two on each ſide of the jaws, *i. e.* one above, and one below, without being preceded by any foal teeth.

The two under tuſhes cut ſometimes at three years, ſometimes at three and a half, ſometimes at four; but the two upper tuſhes appear ſometimes at four, ſometimes at four and a half; ſometimes before, and ſometimes after the corner teeth, without any certain rule; and till the age of ſix they are chamfered within.

About ten years of age the two upper tuſhes appear much worn, which ſerves for that age.

After that they grow out in length, and become bare of fleſh, becauſe the gum ſhrinks and retires; and at laſt, about the fifteenth or ſixteenth year, the horſe ſhells.

A horſe is not capable of any great fatigue till his tuſhes have cut the ſkin.

Moſt of the *Dutch* horſes are very ſick when their tuſhes come forth; mares have them but ſeldom, and when they have them they are but very ſmall. *See* SHELL-TOOTHED *and* COUNTER-MARKED.

TEGG (Hunting term) a doe in the ſecond year of her age.

TEIGNES IN HORSES, a diſtemper in the foot, when the fruſh moulders away in pieces, and it goes the length of the quick, for then the itching pain is ſo great, that it will often make the horſe halt.

TENCH; a delicious freſh water fiſh, that has but ſmall ſcales, yet very large and ſmooth fins; he has a red circle about the eyes, and a little barb hanging at each corner of the mouth.

This fiſh delights more among weeds in ponds, than in clear rivers, and covets to feed in very foul water, yet his fleſh is nouriſhing and pleaſant.

His ſlime is ſaid to be of very healing quality to wounded fiſh, and upon that account has obtained the title of the fiſhes phyſician; nay, the devouring pike is ſaid to be ſo ſenſible of his virtue, that he will not hurt a tench, though he will ſeize upon any fiſh of his ſize that comes in his way: and when the pike is ſick or hurt, he applies to the tench, and finds cure or relief, by rubbing himſelf againſt his body.

TENCH FISHING; the proper time of angling for the tench, is early and late, both morning and evening, in the months of *June*, *July*, and *Auguſt*, or all night in the ſtill parts of rivers.

This fiſh is obſerved to be a great lover of large red worms, and will bite moſt eagerly at them, if you have firſt dipped them in tar: he alſo delights in all ſorts of paſtes, made up with ſtrong ſcented oils, or with tar, or paſte made with brown bread and honey; he will alſo bite at a cad worm, lob-worm, flag-worm, green-gentle, cad bait, marſh-worm, or ſoft boiled bread-grain.

To take Tench out of a muddy Pond.

You muſt provide yourſelf with a very good large caſting net, well leaded, and let not the meſhes, from the crown to a full yard and a half, be too ſmall, for then, if the pond be any thing of a depth, the fiſh will ſtrike away before the net comes to the ground.

The whole net ought to have a large meſh and deep tucked.

Make the place clean from ſtakes and buſhes, and try the net before you go upon the ſport; for if it happens to hang, all your pains would prove ineffectual: therefore you muſt be ſure, before you caſt in your net, to clear and cleanſe the place twice or thrice with a rake.

Then take a quarter of a peck of wheat, baking it well in an oven, putting in near three quarts of water: when it is well baked, take five pints of blood and mix the wheat and blood well together, adding to it as much bran as is ſufficient to make a paſte of it, and that it may the better hold together, mix it up with ſome clay; knead it well together, with a quart of lob worms chopped in pieces, and wrought into a paſte, as has been before directed: make it up into balls as big as a gooſe egg, and throw it into the pond, within the circumference of your caſting net, and between times throw in ſome grains; when you think the fiſh have found out the baiting place, come in the cloſe of the evening (having baited very early in the morning) and caſt your net over the baited place, taking a long pole, with a large fork made for that purpoſe, and ſtir all about the net, for the carp or tench are ſtuck up above their eyes in mud, and ſtand exactly upon their heads; but let the net lie for half an hour, ſtill ſtirring with the pole, if the place be not too deep, and after having covered the fiſh, you may go into the pond and take them out with your hands; but if the water be deep when you find them begin to ſtir, lift the crown of the net bolt upright with

a long ſtaff, that ſo the fiſh may play into the tuck of the net.

Obſerve, if you ſhould draw up your net ſuddenly, after you have caſt it in, it is a hundred to one odds whether you take one of them: but letting the net lie, the mud will choke them, if they remove not out of it.

Terms for the Lodging of Beaſts of Chaſe, &c.

A badger *eartheth.*
A boar *coucheth.*
A buck *lodgeth.*
A coney *ſitteth.*
A fox *kenneleth.*
A hare *ſeateth*, or *formeth.*
A hart *harboureth.*
A martern *treeth.*
An otter *watcheth.*
A roe *beddeth.*

For the Diſlodging them.

A badger, *to dig.*
A boar, *to rear.*
A buck, *to rouze.*
A coney, *to bolt.*
A fox, *to unkennel.*
A hare, *to ſtart.*
A hart, *to unharbour.*
A martern, *to untree.*
An otter, *to vent.*

For their Noiſe at Rutting Time.

A badger *ſhrieketh.*
A boar *breameth.*
A buck *groaneth*, or *troateth.*
A fox *barketh.*
A goat *rattleth.*
A hare *beateth*, or *tappeth.*
A hart *belleth.*
An otter *whineth.*
A roe *belloweth.*
A wolf *howleth.*

For their Copulation.

A boar *goeth to brim.*
A buck *goeth to rut.*
A coney *goeth to buck.*
A fox *goeth a clicketting.*
A hare *goeth to buck.*
A hart *goeth to rut.*
An otter *hunteth for his kind.*
A roe *goeth to tourn.*
A wolf *goes to match or make.*

Terms when they are in Company one with another.

A *herd* of harts, and all manner of deer.
A *bevy* of roes.
A *founder* of ſwine.
A *rout* of wolves.
A *brace* or *leaſh* of bucks, foxes, or hares.
A *couple* of rabbits.
A *couple* of coneys.
A *richneſs* of marterns.

For their Foot and Treading.

A boar, the *track.*

A buck, and all fallow deer, *the view.*

Of all deer, if on the graſs, and ſcarce viſible, then it is called *foiling.*

Of a fox, the *print*, and of other ſuch vermin the *footing.*

Of a hare diverſly; for when ſhe is in open field, ſhe is ſaid to *ſore*, when ſhe winds about to deceive the hounds, ſhe *doubles:* when ſhe beats on the hard highway, and her footing can be perceived, ſhe *pricketh*, and in the ſnow her footing is called the *trace.*

Of the hart the *ſlot.*

Of an otter, the *marks.*

Terms of a Tail.

A boar, the *wreath.*

A buck, the *ſingle.*

A coney, the *ſcut.*

A fox, the *bruſh* or *drag*, and the tip at the end is called the *chape.*

A hare, the *ſcut.*

A hart, the *ſingle.*

A wolf, the *ſtern.*

For their Ordure.

Of a boar, the *leſſes.*

Of a deer, *fewmets*, or *fewmiſhing.*

Of a fox, *blittering*, and all other ſuch the *fuants.*

Of a hare, *crotiles*, or *crotiſing.*

Of a hart, the *fewmets*, or *fumiſhing.*

Of an otter the *ſpraints.*

Terms in Hunting, &c.

When a hart breaks herd, and draws to the thicket, or coverts, they uſually ſay he *takes his hold*, or *goes to harbour.*

All kind of deers fat is called *ſuet*, and yet you may ſay this deer was a high *deer of greaſe.*

The fat of a boar is called *greaſe.* The fat of a roe only, is called *heavy greaſe.*

Of a deer they ſay, *ſhe is broken up*, of a fox and hare *ſhe is caſed.*

Of fox cubs, they ſay *a litter;* of rabbits, *a neſt;* of ſquirrels, *a dray.*

Terms for the Attire of Deer.

Of a ſtag, if perfect, *the bur*, the *pearls* (the little knobs on it) the *beam*, the *gutteres*, the *antler*, the *ſur-antler*, *royal*, *ſur-royal*, and all at the top the *croches.*

Of a buck, the *bur*, the *beam*, the *brow-antler*, the *back-antler*, the *advancer*, *palm*, and *ſpellers.*

If the croches grow in form of a man's hand, it is then called a *palmed-head*; heads bearing not above three or four, three croches being placed aloft of one height, are called *crowned-heads.* Heads having doubling croches, are called *forked-heads*, becauſe the croches are planted on the top of the beam like forks.

If you are aſked what a ſtag bears, you are only to reckon the croches he bears, and never to expreſs an odd number: for if he has four croches on his near horn, and five on his far, you muſt ſay *he bears ten*, a falſe right on his near horn (for all that a beam bears are called *rights*). If but four on the near horn and ſix on the far horn, you muſt ſay *he bears twelve*, a double falſe right on the near horn; for you muſt not only make

make the number even, but alſo the horns even with that diſtinction.

Terms for flaying, ſtripping, and caſing all manner of Chaſes.

Of a hart and all manner of deer, they ſay *they are ſlain.* Huntſmen uſually ſay *take off that deer's ſkin.*

Of a hare, they ſay ſhe is *ſtripped*, or *caſed*; the ſame term is alſo uſed of a boar.

A fox, badger, and all manner of vermin, are ſaid to be *caſed*, beginning at the ſnout, or noſe of the beaſt, his ſkin being turned over his ears down to the body, till you come to the tail.

Proper Terms for the Noiſes of Hounds.

When hounds are firſt caſt off, and find ſome game, or chaſe, we ſay they *challenge.*

If they are too buſy before they find the ſcent good, it is ſaid they *babble.*

If they run it end ways before they make it good, and then hold it together merrily, they are ſaid to be *in full cry.*

When ſpaniels open in the ſtring (or a greyhound in his courſe) they ſay, they *lapſe.*

When hounds hang behind, and beat too much upon the ſcent, or place, they ſay, *they plod.*

When they have either earthed a vermin, or brought a deer, boar, or the like, to turn head againſt them, they are ſaid *to bay.*

Different Terms for Hounds and Greyhounds.

Of greyhounds two make a *brace*; of hounds a *couple*; and of greyhounds three make a *leaſh*; and of hounds *a couple and a half*; they ſay *let ſlip a greyhound*, and *caſt off a hound.*

They call the ſtring, wherein a greyhound is led, a *leaſe*: and that of a hound, a *leam*, *liam*, or *lyſme.*

The greyhound hath his *collar*, and the hound his *couples.*

Of hounds they ſay a *kennel*, of beagles a *pack.*

Thoſe places are called *entries* where they find a deer has lately paſſed into thickets, by which they gueſs at their largeneſs, and then put the hounds or beagles thereto for their view.

A *layer* is a place where any deer has repoſed or harboured.

When the hounds or beagles hit the ſcent of their chaſe contrary, as to hit him up the wind, when they ſhould hit it down, they ſay *they draw a miſt.*

When hounds or beagles take freſh ſcent, hunting another chaſe, until they ſlick and hit it again, they ſay *they hunt change.*

When the hounds or beagles hunt it by the heel, they ſay *they hunt counter.*

When the chaſe goes off, and comes on again, traverſing the ſame ground to deceive the hounds or beagles, they ſay *they hunt the foil.*

When they ſet hounds in readineſs, where they expect the deer will come by, and then caſt them off, when the other hounds are paſt by, they call that *a relay.*

When hounds or beagles have finiſhed their chaſe, by the death of what they purſued, and then in requital, are fed by the hands of the huntſman, or others, it is called *a reward.*

When huntſmen go drawing in their ſprings at hart-hunting; and uſually make dew-rounds, they are called *ring-walks.*

When deer caſt their horns, they are ſaid *to mew.*

When a deer has been hard hunted, and then betakes himſelf to ſwimming in any river, &c. they ſay *he takes ſoil.*

The firſt head of a fallow deer is called *the prick.*

When huntſmen endeavour to find a hart by the *ſlot*, and then mind his ſtep, to know whether he is great and long, they then ſay they know him by his *gait.*

When deer, after having been hard ran, turn head againſt the hounds, they are ſaid *to bay.*

When hounds or beagles run along, without making any cry, they are ſaid *to run mute.*

When hounds or beagles at firſt finding the ſcent of their game, preſently open and cry, they are then ſaid *to challenge.*

When hounds run at a whole herd of deer, they are ſaid to *run riot.*

When the hounds touch the ſcent, and draw on till they rouze or put up the chaſe, they ſay *they draw on the ſlot.*

When a roe croſſes and doubles, it is called *trojoining.*

When a hare, as ſometimes, (though ſeldom) takes the ground like a coney, they then ſay, *ſhe goes to the vault.*

When they beat the buſhes after a fox, they call it *drawing.*

When a hare runs on rotten ground, or in a foreſt ſometimes, and then it ſticks to her feet, they ſay *ſhe carries.*

When a fox has young ones in her, they ſay *ſhe is with cub.*

When beagles bark and cry at their prey, they ſay, *they yearn.*

A red male hart of a year old, is called a *ſpitter.*

A rein deer is a beaſt like a hart, but hath his head fuller of antlers. Thoſe engines that deer are taken with, are called *wiles.*

When hounds or beagles are ſet in readineſs, expecting the chaſe to come by, and then caſt off before the reſt come in, it is called *a vauntlay.*

When they ſtart a hare, they cry *that that*, or *there there.*

When hounds or beagles find where the chaſe hath been, and make a proffer to enter, but return, they call it *a blemiſh.*

To a deer they ſay *how.*

A leſſon blown on the horn to comfort the hounds, is termed *a call.*

A *recheat* is a leſſon blown on the horn.

The *mort* or *death*, is blown at the death of any deer.

A hind in the firſt year is called a *cuſt*, in the ſecond

year a *hearſe*; and ſometimes we ſay a *brocket's ſiſter*, &c. and the third year a *hind*.

A hare is the firſt year called a *leveret*, the ſecond year a *hare*, the third year a *great hare*.

The fox is the firſt year called a *cub*, the ſecond a *fox*, the third year an *old fox*.

A coney is called the firſt year a *rabbet*, and afterwards an *old coney*.

When you ſee about twenty deer, of what ſort ſoever, together, it is a *ſmall herd*; about forty is a *middle herd*; ſixty or eighty is a *great herd*, whether they be male or female.

Upon view of a hart, if he be a goodly deer, do not call him *fair*, but *great*; and ſo a *great hind* and a *great buck*; but a *fair* and *comely doe*.

When a deer eateth in a corn or graſs field, he is ſaid to *feed*, otherwiſe to *browze*; and if he ſtayeth to look on any thing, he is ſaid to *ſtand at gaze*; when he forceth by upon force, he *trippeth*; and when he runs a pace he *ſtraineth*.

When he is hunted and leaves the herd, then he *ſingleth*; and when he foams at the mouth, he is *embaſſed*; when he ſwelleth or venteth any thing, they ſay he hath this or that in the *wind*; when he holds out his neck at the full length inclining, they ſay *he is ſpent*; and being dead, ſay *he is done*.

When a huntſman beats a wood to find a chaſe, it is called *drawing of the covert*; and when he ſees where any deer hath been, they ſay *here he breaketh*.

When ſome few hounds are ſet in readineſs, by any place where it is ſuppoſed the chaſe will paſs, it is termed a *vauntlay*; and when they tarry until the reſt of the hounds come in, it is called *an allay*; but if they hold till the kennel be paſt, it is called *a relay*.

When a hart entereth a river or pool, which is termed the *ſoil*, ſay *ſhe deſcendeth*; when you ſee him ready to enter water, ſay *he proffereth*; and if he doth it the ſecond time, then ſay *he re-proffereth*; and after he hath once deſcended, and you ſee where he hath trod, the water filling his footſteps, then ſay *here the hart defouleth*; and the ſlot or view that is found of ſuch a deer on the other ſide of the water, is to be termed *as a deer defoulant the ſoil*.

The hart, buck, and boar, oftentimes take ſoil without being forced, and all other beaſts are only ſaid to take water, except the otter, and he is ſaid to *beat the ſtream*.

When they caſt about a grove or wood with the blood-hound, they *make a ring*: when they find where the deer hath paſſed, and plaſh any bough downwards for a mark, then they ſay *they blemiſh*, or *make blemiſhes*.

When they hang up any paper, clout, or mark, it is called *ſewelling*, or *ſetting of jewels*.

When a hound meets a chaſe and goes away with it far before the reſt, they ſay *ſhe foreloyneth*.

When a hound hunts backwards the ſame way the chaſe is come, then they ſay *he hunts counter*; and if he hunts any other chaſe but what he firſt undertook, then he is ſaid to *hunt change*.

When any deer, or other chaſe, uſeth ſubtilties to deceive the hounds, then he is ſaid to *croſs* or *double*.

When a hart or ſtag breaks herd, and draws to the covert, they ſay *he goes to harbour*, or *taketh his hold*, or *he covereth*; and when he cometh out again, then *he diſcovereth himſelf*.

There is a great difference between the *frith* and the *fell*; the *fells* being taken for the *vallies*, green *compaſtures*, and *mountains*; and the *friths* for *ſprings* and *coppices*.

There is alſo a difference between the word *ways* and *trenches*: for by the firſt is meant the high and beaten ways on the outſide of a foreſt or wood; and by the word *trench*, a very ſmall way, not ſo commonly uſed.

There is likewiſe a difference between a *trench* and a *path*, which is a place where a deer has only left *ſlot* or *view*.

Blemiſhes, are the marks to know where a deer hath gone in or out, and they are little boughs plaſhed or broken to hang downwards; for any thing that is hung up, is called a *jewel*.

Terms in HAWKING, *&c.*

Arms, the legs from the feet to the thigh.

Bate, } is a term uſed of a hawk, when ſhe flutters
Bateth, } with her wings from the perch to the fiſt, endeavouring to fly away.

Bathing, is waſhing herſelf.

Beak, the upper crooked part of her bill.

Beam Feathers, the long feathers in the wings.

Beavy of Quails, a brood of young ones.

Bewits, the leathers, with bells, which are buttoned about the hawk's legs.

Bowet, } a young hawk that draws any thing out of
Boweſs, } her neſt, and endeavours to get on the boughs.

Bowſing, is a hawk's drinking often, and yet deſires more.

Brayle, a piece of leather ſlit to put upon her wing to tie it up.

Brancher, a young hawk, new taken out of the neſt, which can hop from bough to bough.

Cage, that on which hawks are carried, when deſigned for ſale.

Cancellering, or *cancellaring*, ſignifies ſtooping.

Carrying, a hawk is ſaid ſo to do, when ſhe flies away with her quarry.

A Caſt of Hawks, are two.

Caſting, is what is given her to purge or cleanſe her gorge.

Cataract, a diſeaſe in a hawk's eye.

Cauterizing irons, are uſed in ſearing.

Cawking-time, treading or coupling time.

Check, is when ſhe forſakes her proper game, and flies at crows, pyes, or the like, that croſs her in her flight.

Clap, the nether part of the beak.

Coping, is paring.

Coping-irons, are thoſe uſed for coping or paring her pounces or talons, when they are over-grown.

Cowring, is quivering or ſhaking, in teſtimony of obedience towards the old ones.

Covey of Partridges, a brood that always accompany together with the old ones till pairing time.

Crabbing, is when hawks that ſtand near one another, fight.

Cray, a diſeaſe in a hawk.

Creance, a ſmall long line of fine, even packthread, that is faſtened to the leaſe of a hawk, when ſhe is firſt lured.

Crivets, *Crinets*, the ſmall black hairs about the lears or eye-lids.

Crock, a diſeaſe in a hawk.

Diſcloſed, is when the young ones juſt peep through the ſhells.

Dropping, is when ſhe muteth downwards in ſeveral drops, and not yerking it ſtraight forward.

To Endew, *To Endue*, is when ſhe digeſteth her meat, not only diſcharging her gorge of it, but alſo cleanſing her pannel.

Engouth, when the feathers have black ſpots.

To Enſeam, is to purge her of her glut and gleam.

To Enter, a term uſed of a hawk, when ſhe begins firſt to kill.

Eyes, a young hawk juſt taken out of the neſt.

Eyrie, the place where they build and hatch their young.

Feuking, is wiping her beak after feeding.

Filander, a diſeaſe in a hawk.

Flags, the feathers next the principal feathers in her wings.

Flying on head, is when ſhe miſſes her quarry, and betakes herſelf to the next check, as crows, pyes, &c.

Formale, the female hawk.

Formica, a diſeaſe in hawks.

Frounce, a diſeaſe in hawks.

Gleam, a term uſed after a hawk hath caſt and gleameth, or throweth up filth from her gorge.

Glut, the ſlimy ſubſtance that lies in the pannel.

Gorge, the crop or craw of a hawk, or other fowl.

Gurgipting, is ſaid of a hawk when ſhe is ſtuffed up.

Hack, a place where a hawk's meat is put.

Hac Hawk, that is a tackler.

Haggard-Hawk, one that has preyed for herſelf, and is taken after *Lent*.

Jack, a male hawk.

Jeſſes, the ſmall ſtraps of leather that are faſtened to her legs, and ſo to the leaſh, by the varvels.

To Imp, is to put a feather into a hawk's wing, in the place of one that is broken.

Juke, the neck from the head to the body, of any bird a hawk preys upon.

Intermewing, is from the firſt exchange of her coat, till ſhe turns white.

To Jonk, is to ſleep.

To Lean, is to hold to you.

Leaſe, *Leaſh*, the ſmall long leather thong faſtened to the jeſſes, by which ſhe is held faſt on the fiſt, it being wrapt about the fingers.

Lure, that which is caſt up by Falconers to bring a hawk down.

A Make-Hawk, *A Quarry-Hawk*, an old ſtaunch hawk made uſe of to enter young.

Mails, the breaſt feathers of a hawk.

Manning a hawk, is making her endure company.

To Mantle, is to ſtretch one wing after one leg, and the other after the other.

Mew, the place where a hawk is ſet down, the time ſhe raiſeth her feathers.

Mewting, the dung of long-winged hawks.

Nares, the little holes in a hawk's beak.

Pannel, the pipe next her fundament, where ſhe digeſteth her meat from her body.

Perch, a place on which a hawk is ſet to reſt.

Pelt, the dead body of any fowl ſhe has killed.

Pendant feathers, thoſe behind the thighs.

Petty ſingles, a hawk's toe.

Pill, *Pelf*, that which a hawk leaves of her prey after ſhe is relieved.

The Pin, a diſeaſe in hawks.

Plume, the general mixture of colours and feathers, by which the conſtitution of a hawk is known.

Plumage, the ſmall feathers given a hawk to make her caſt.

Pluming, is after a hawk has ſeized her prey, and diſmantles it of it's feathers.

Pounces of a hawk, her claws.

Poult, that is, killing poultry.

In Pride, is to be in good fleſh and heart.

To Prune, is to pick herſelf.

Put over, a term uſed when ſhe removes her meat from her gorge into her bowels, by traverſing with her body; but chiefly, with her neck.

Quarry, the fowl a hawk flies at, either dead or alive.

Quarry-Hawk, an old, entered, and reclaimed hawk.

To Rake, a term uſed when ſhe flies out too far from the game.

Ramage, or *ſoar-hawk*, is one that can fly, having preyed for herſelf.

Rangle, is when ſhe has gravel given to her to bring her to a ſtomach.

To Reclaim a Hawk, is to make her gentle and familiar.

Retrieve, is when partridges having been ſprung, are to be found again.

To Rouze, is to liſt up, and ſhake herſelf.

To Ruff, is to hit the prey, and not to truſs it.

Ruſter-hood, a large, wide, and eaſy hood, open behind, being the firſt that is made uſe of.

Rye, a diſeaſe in hawks.

Sails, the wings of an hawk.

Sear, the yellow betwixt her beak and eyes.

Seeling, is when being firſt taken ſhe is blinded, with a thread run through her eye-lids, ſo that ſhe ſees but little, or not at all, that ſhe may the better endure the hood.

Seizing, is when ſhe gripes the prey with her talons.

Setting down, is when ſhe is put into the mew.

Slice, is the dung of a ſhort-winged hawk.

Sliceth, ſignifies ſhe mewteth a good diſtance from her.

Slimeth, that is, ſhe mewteth without dropping.

Staunch Hawk, one well entered for the game.

Stooping, is when ſhe is aloft upon the wing, and deſcends to ſtrike the game.

Summed, is when ſhe is in all her plumes.

Swival,

Swivel, that which keeps a hawk from twiſting.

Taſſel, a male hawk.

Tiring, is when you give her the leg or pinion of a pigeon, or the like, to pick at.

Towereth, is when ſhe lifts up her wings.

Train, the tail of a hawk.

Trail, ſomething alive or dead, tied to the lure to entice her with it.

Truſſing, is when ſhe raiſes a fowl aloft, and ſoaring with it, at length deſcends with it to the ground.

Varvels, little ſilver rings at the end of *jeſſes*, on which the owner's name is engraven.

Unreclaimed, is ſaid of a hawk while ſhe is wild.

To Unſtrike the Hood, is to draw the ſtrings that it may be in readineſs to be pulled off.

Unſummed, is when her feathers are not fully grown.

Urivet, nets to catch hawks with.

To Weather a Hawk, is to air her.

TERRA-A-TERRA, is a ſeries of low leaps, which a horſe makes forwards, bearing ſide-ways, and working upon two treads.

In this motion, a horſe lifts both his fore-legs at once, and when theſe are upon the point of deſcending to the ground, the hinder legs accompany them with a ſhort and quick cadence, always bearing and ſtaying upon the haunches; ſo that the motions of the hinder-quarters are ſhort and quick; and the horſe being always well preſſed and coupled, he lifts his fore-legs pretty high, and his hinder-legs keep always low, and near the ground.

This manage is called *terra-a-terra*, becauſe in this motion the horſe does not lift his legs ſo high as in corvets.

TERRAIGNOL. A horſe ſo called, is one that cleaves to the ground, that cannot be made light upon the hand, or put upon his haunches, that raiſes his fore-quarters with difficulty, that is charged with ſhoulders, and, in general, one whoſe motions are all ſhort, and too near the ground.

TERRAIN, is the managed ground upon which the horſe marks his piſte or tread; this horſe obſerves his ground well; he keeps his ground well; he embraces his ground well; without enlarging or narrowing more to one hand than to another.

TERRIER. A kind of mongrel greyhound, uſed chiefly for hunting the fox or badger; ſo called, becauſe he creeps into the ground, as the ferrets do into the coney-burrows, and there nips and bites the fox and badger, either tearing them in pieces with his teeth, or elſe hauling and pulling them by force out of their lurking holes; or at leaſt driving them out of their hollow harbours, to be taken by a net, or otherwiſe.

The huntſmen have commonly a couple of terriers, to the end they may put in a freſh one, as occaſion ſerves, to relieve the other.

The time proper for entering theſe terriers is, when they are near a year old; for if it be not done within that time, they will hardly after be brought to take the earth, and this entering and fleſhing of them may be performed ſeveral ways.

1. When foxes and badgers have young cubs, take your old terriers, and enter them in the ground; and when they begin to bay, hold every one of your young terriers at a particular hole or mouth of the earth, that they may liſten, and hear the old ones bay.

After you have taken the old fox or badger, ſo that nothing remains within but the young cubs, couple all your old terriers, and put the young ones in their ſtead; encourage them by crying, *to him, to him.*

And if they take any young cub within the ground, let them alone to do what they will with him; and do not forget to give the old terriers their reward, which is blood and livers fried with cheeſe, and ſome of their greaſe, ſhewing the heads and ſkins to encourage them.

Another way is, to take an old fox or badger, and to cut his nether jaw away, leaving the upper to ſhew the fury of the beaſt, though he can do no harm with it, or elſe break out all his teeth; then dig an earth in ſome convenient place in the ground, making it wide enough, that the terriers may the better turn therein, and have room enough for two to enter.

Cover the whole with boards and turf, firſt putting the fox or badger in, and then your terriers, both old and young; which when they have bayed ſufficiently, begin to dig with ſpades and mattocks, to encourage them, againſt ſuch time as you are to dig over them: afterwards, take out the fox and badger, with the chumps or pincers, killing it before them; or let a greyhound kill it in their ſight. *See* HARRIER.

TETTER, otherwiſe called flying-worm or ring-worm, a very bad ſorrance, which runs up and down a horſe's body; from whence it receives its name; ſometimes proceeding from the heat of the blood, and engenders a hot and ſharp humour, and ſometimes from bad and foul feeding, and is moſt commonly found in his rump, which runs down the joint till it runs into the tail; and if it continues there long, will turn into a canker; but yet it will now and then ſettle upon ſome fleſhy part of the body, which will ſo trouble him with itching, and rubbing againſt walls and poſts, that it will bring away the hair, ſkin and fleſh; he will tear with his teeth, if he can come at it, the itching is ſo violent.

This diſtemper may be known by the falling away of the hair, and by his continual rubbing; but if it gets into the joint, between the top of his rump and the tail, then it is known by a ſcab, which you may feel with your finger; and if it be ſcraped or picked away, a thin water will come out of it by degrees, which being left long to run, will, in time, get into his tail, and become a canker, as aforeſaid.

Things generally uſed in the cure of this diſorder, are, water found in the decayed hollow of a beech-tree, wherewith it is rubbed: the juice of the leaves and roots of ſtinking gladwin, one pint of plantain-water, two of beef-brine, boiled together, and clarified, is good to kill them: ſo are many more things; but particularly, take two drachms of precipitate, put into a ſmall glaſs-vial, with fair water, much more than will cover the powder, and kept cloſe ſtopped; with which waſh it thrice a day, and after you have dreſſed

dreſſed the ſorrance, ſhake the glaſs, and let it ſtand till next dreſſing: but if it be in any fleſhy part, you may kill it by bathing the place with the juice of ſouthern wood, maudling, and rue, of each a like quantity, and put them into three quarts of urine, with two handfuls of bay-ſalt: let it boil till one quart be conſumed: then take it off, and with a clout faſtened to a ſtick, waſh the ſorrance very hot, four or five mornings together. Or,

Melt arſenic in a fire-pan over the fire; and when cold, reduce it to a powder; taking care to avoid its fumes while melting, and the powder when pounding; ſcratch the wart or tetter till it bleeds, and apply a ſmall quantity of powder, which without repeating the application, will generally remove the blemiſh.

THIGHS OF A HORSEMAN, the effect of the rider's thigh is one of the aids that ſerves to make a horſe work vigorouſly in the manage.

As ſoon as the horſeman cloſes with his thighs, you ſee the horſe is enlivened and alarmed, as preparing himſelf for doing what is demanded of him, and diſpoſing himſelf for the manage.

THROSTLE, OR THRUSH: of this bird there are five ſorts; 1. The miſtle-throſtle, which is much bigger and larger than any of the others; her food far different, and very few of them to be ſeen; and though ſhe is exceeding beautiful, yet ſhe ſings but little, except ſhe breeds near a place where is a quantity of miſletoe, and if it be poſſible in a thicket, or in ſome pit; for ſhe is a very melancholy ſort of bird: ſhe makes as large a neſt as the jay, and lays as big an egg, building the outſide commonly with rotten heaps, and the inſide with dead graſs, hay, or moſs, that ſhe peels from trees: ſhe ſeldom lays above five eggs, but moſt commonly four; breeds but twice a year; has three young ones, never more than four; feeds all her young ones with the berries of miſletoe, and nothing elſe, as can be perceived; for which reaſon, ſome eſteem the fleſh of the throſtle as an excellent remedy againſt convulſions and the falling ſickneſs. The young birds of this kind, taken about fourteen days old, are eaſy to be brought up, being very hardy; they are fed with bread, hemp ſeed, and a little ſheep's-heart between whiles. But their ſong is confuſed and rambling, not laviſh, and therefore they are not worth rearing, yet they will breed like pigeons, if rightly managed.

2. The northern throſtle or field-fare; which comes to us after *Michaelmas*, continues all winter, and departs the firſt of *March;* his food is hips and haws in hard weather: and in open weather, worms and young graſs, lying altogether upon meadow and paſture-grounds: they come in very great numbers, and alſo go away in flocks: their breeding-place is aſſigned to be near the ſea-ſide in *Scotland*, where they are in abundance, and have young three or four times every year: they may be taken by bird-lime; and are better for the ſpit than the cage, being excellent meat when very fat, which is in hard weather; but in open weather their fleſh is bitter, and not worth eating.

3. The wind throſtle, which comes along with the laſt mentioned bird, but ſhe is much ſmaller, with a dark red under wing; ſhe breeds in woods and ſhaws, as the ſong-throſtle in *Scotland* does, and has an indifferent ſong, far exceeding the two former: in *January*, in fine weather, the ſun-ſhining, they will get a great many together upon a tree, and ſing two or three hours, yet they are not melodious, and ſo not worth the pains of keeping, eſpecially ſince they will not ſing above three months.

4. The wood-ſong throſtle, which is a very choice ſong-bird, for the great variety of his notes, for laviſhneſs in his ſong, and for his continuing longer than any bird in ſong, it being at leaſt nine months in the year. The hen builds her neſt the beginning of *March*, upon the ſtump of an old tree or ſide of the coppice by a ditch, according as ſhe finds food, and ſtuff moſt convenient for her building, as alſo meat for her young. She faſhions her neſt round and deep, with moſs, or dry graſs; and when ſhe has completed the firſt part, ſhe wonderfully and after a moſt exquiſite manner, daubs the inſide with a ſort of earth called loam; doing it ſo ſmooth and even, and all with her bill, that it is beyond the art of man to perform the like with any tools: whereas this bird commonly leaves a hole at the bottom of her neſt in the middle, it is ſuppoſed to be to this end, that it may not be drowned upon any ſudden violent ſhowers, or long continuance of rain: they generally breed three times a year, if they meet with no diſturbance or caſualties by the way; and if the weather be fine and warm, they go very ſoon to neſt. The firſt commonly is hatched in *April*, and ſometimes the latter end of *March*, the ſecond in *May*, and the third in *June;* but the firſt birds generally prove the ſtouteſt and beſt: they may be taken from the neſt at fourteen days old, but muſt be kept warm and neat, not letting them ſit upon their dung, if it fall into their neſt, but to order it ſo, they may dung over their neſt, while they are young and ſmall. They ſhould be fed with raw meat, and ſome bread chopped and mixed together with hempſeed bruiſed; which bread is to be wet and mingled with the meat. When they begin to be well feathered, put them into a large cage, with ſome dry moſs in the bottom, and let them have two or three perches, that they may ſit and lie at pleaſure; for if not kept clean, they are ſubject to the cramp, and will never ſing, nor delight in themſelves: you may, by degrees, leave off giving the ſheep's heart, for bread and hempſeed will do; but be ſure to let them have freſh water twice a week, that they may bathe and prune themſelves.

5. The heath-throſtle, the ſmalleſt of the three ſorts we have in *England*, and is known by his dark breaſt: in ſome countries they are called Maviſes; for they differ in their colour, ſong, and way of breeding: the cock-heath throſtle hath much ſweeter notes than the wood-ſong throſtle, is neater in his plume, and ſo to be preferred before him. The hen builds by the heath-ſide, either in a furze-buſh, or by a ditch ſide, in the ſtump of an old hawthorn, and ſeldom haunts the woods and ſhaws, as the other does; her neſt is very difficult to be found, which ſhe builds with long green ground moſs, making it much deeper, and leſs than

than the former; ſhe begins not to hatch till the middle of *April;* breeds twice a year, and is a fine, tame, neat bird, if well fed, and kept clean from dung and vermin. Her young are to be brought up in every reſpect after the ſame manner as is here ordered for the other ſort.

There are ſeveral methods laid down to diſtinguiſh the cock from the hen: but to avoid needleſs particulars, firſt view his gullet, whether it be white, with black ſtreaks on each ſide; then if he hath large and black ſpots upon his breaſt, and the colour of his head of a light ſhining brown, with black ſtreaks under the eye, and upon the pinion of the wing; if you find theſe marks, you are right in your choice: but if you would not fail, bring up the whole brood, and as you will find in a ſhort time after they feed themſelves, that they all record to themſelves; yet take notice, that the hen does it with ſhort catches and jerks, and continues it not long; whereas the cock is full, and you perceive his gullet to extend much more than the oth rs, and to ſing much oftener than the hen. Having made this obſervation two or three times, take him out of the cage, mark him, and then put him in again.

TICK, an infirmity in a horſe, when he preſſes the edge of the manger with his upper teeth, and gives a kind of belch through the throat, by which means he loſes part of his oats.

TICKLISH IN THE MANAGE. A horſe is ſaid to be tickliſh, that is, too tender upon the ſpur, and too ſenſible, that does not freely fly the ſpurs, but in ſome meaſure reſiſts them, throwing himſelf up, when they come near and prick his ſkin.

TIRING. If this befal a horſe in travelling, or a hunting-match, or the like, the beſt helps you can give him, is warm wine to drink, and bleed him in the mouth, and to let him lick up and ſwallow the ſame; and if there are nettles to be had where you are, rub his mouth, and ſheath him well with them, and afterwards ride him gently to his reſting place, and ſet him up warm, and before you go to bed give him half a dozen ſpoonfuls of aqua vitæ, with as much provender as he will eat: the next morning rub his legs with ſheep's foot oil, and it will cauſe a freſh agility in his limbs.

Some bleed the horſe in the neck vein, and the next day give him a clyſter, with an ounce and a half of ſal polycreſtum, and afterwards cauſe him to drink a pound and a half of olive-oil, and keep him bridled for two hours after.

TIT. A little horſe, and ſome call a horſe of a middle ſize a double tit.

TIT-LARK. This bird is ſhort in his ſong, and no variety in it, yet ſome fancy him for his whiſking, turning and chewing, ſinging moſt like the canary bird of any bird whatſoever. He commonly appears the beginning of *April*, and leaves us at the beginning of *September*.

When they are taken, they are fed as the nightingale is; they muſt be crammed at firſt, for they will not feed themſelves, by reaſon they always feed on live meat in the field; for which cauſe he is unacquainted with the meat we offer him: when he comes to feed of himſelf, he will eat what the wood-lark eats, or almoſt any other.

There is no taking the old ones but with a net, ſuch as all other birds are catched with.

This bird breeds about the latter end of *April*, or beginning of *May*, and builds her neſt on the ground by ſome pond ſide, or ditch-ſide, or in a garden in high graſs, and makes her neſt of dead graſs and a few ſmall roots; commonly lays ſix eggs, or five at leaſt, and has her young by the middle of *May*, which ſhe feeds with caterpillars and flies.

Theſe birds are very eaſily brought up, being hardy, and not ſubject to colds and cramps as other birds are, but live long if preſerved with care.

TOE BEFORE, AND QUARTER BEHIND (with Farriers) a rule which they obſerve in ſhoeing horſes, or, as it is commonly expreſſed, *before behind*, and *behind before*.

By toe before is meant, that you may give the nails a good hold upon the toe of the fore feet; becauſe there the horn is very thick, which it is not in the quarters of the fore-feet, for there the horn is thin, and you would hazard the pricking the horſe. *See* QUARTER BEHIND AND OPENING A HORSE'S HEELS.

TONGUE OF A HORSE, ſhould be ſmall, or elſe it will be difficult to keep the bit from preſſing it; which cauſing the tongue to extend over his bars and to cover them, will render his feeling of the preſſure of the bit dull, by hindering its operation and effect upon the bars.

TONGUE-HURT, is what befals a horſe by accident, or by a bit, halter or the like.

For the cure; ſome boil water in leaves of wood-bine, primroſe, blackberry and knot graſs, with ſome honey, adding a little alum; with this they waſh the horſe's ſore of his tongue two or three times a day with a clout tied to a piece of ſtick, the liquor being lukewarm.

Or anoint with mel roſatum; but whenever you dreſs either tongue or mouth, do not fail to tie the horſe up to the rack for an hour after it.

Some take red honey, the marrow of pork powdered, quick lime and pepper, made into fine powder, of each a like quantity, and boil them together till they come to an ointment, and rub the part with it twice a-day.

TOP-ANGLING, with a worm, requires a line without float or lead. The bait muſt be drawn up and down the ſtream on the top of the water. This method ſhould only be uſed when the weather is fine, and the water clear; it is ſometimes ſucceſsful in fiſhing for a trout and ſalmon-ſmelts.

TORCHENISS, is a long ſtick with a hole at the end of it, through which we run a ſtrap of leather; the two ends of which being tied together, ſerve to ſtraighten cloſely and tie up a horſe's noſe, as long as the ſtick is ſtaved upon the halter or ſnaffle.

This is done to keep the horſe from being unruly when they go to dreſs him, or upon any other occaſion.

TOWRUS (with Hunters) a roebuck, eager for copulation, is ſaid to go to his towrus.

TRACE OF A HARE, is her footing in the ſnow, diſtinct from her other treadings, called doubling, ſoring and pricking.

TRACES, are alſo the treads of ravenous beaſts, or wolves, wild bears, &c.

TRACK [with Huntſmen] the footing of a wild boar.

TRAILING. For trailing no rules can be laid down with certainty, it depends on the judgment of the huntſman, and his juſt knowledge of the ſeveral good and bad properties of his dogs. A kennel of the beſt hounds in *Great Britain* are not all alike: ſome are good for trailing and ſtarting; others excellent when the hare is on foot; others again, for hitting off defaults, running the double, or hot foil, or making good the hard ways.

Some huntſmen, the inſtant they find where a hare has relieved, trouble themſelves not at all about trailing to her, but proceed with the company to threſhing the hedges for a wide compaſs, many of whom, being ſo ſparing of their pains, as often beat over, as beat a hare up. But trailing fairly and ſtarting, is the niceſt part of the whole paſtime, provided wind and weather permit.

It is an undetermined point at trail or cold hunting, whether the dogs challenge from any particular effluvia that tranſpired from the feet of a hare, or remains of breath, that in her feeding and exerciſe intermixed with and ſoiled the paſture and herbage. Was it from the foot alone, the moiſt path would be eaſier to challenge upon than the verdant ſward.

If the hounds challenge on the relief, it is a point of judgment not to let them puzzle and ſtick, but to rate them together, and to make it good round the fences the ſooner the better. Now the huntſman muſt depend abſolutely on his dogs; the tender-noſed hound generally hits it firſt, and is very often unjuſtly deemed a babbler, becauſe a tougher dog does not make good what he opens upon; whereas the difference too often is, that one hound's noſe is ſo exquiſitely delicate, as to enjoy a ſcent twice as ſtale as another.

Obſerve ſome one or two open cheerily, the whole pack runs in, not one, for want of equal talents, approves. But as they proceed to warmer ſcent, if others gravely undertake to peruſe the caſe, and, on due conſideration, challenge but in ſingle notes, the whole kennel from every quarter hurry, and with general yelp confirm the report; whilſt the aſſiduous huntſman, glad at heart, in oratory of his own, proclaims it good.

It is ſurprizing what a notable confidence preſides among hounds, in proportion to the reality of each other's aſſurances. The moſt rigid ſincere perſon upon the earth, cannot deteſt or leſs credit the notorious cheat or liar, than a ſtaunch hound one that opens falſe, or ſpends his tongue free to little purpoſe.

The notes of the hounds are certain language in the ears of the huntſman, and what he depends upon more than the judgment of all his friends in the field.

According to the length of time a hare has been gone to form, do they more or leſs aſſure him of their likelihood to ſtart. At the moſt diſtant part of her morning's exerciſe, when the tendereſt noſed dog can but touch of the ſcent, the true muſical hound opens ſingle: perhaps a long holding note, or (according to the dog) only what ſome people call a chop. As they gather on towards her, each old ſophiſter confirms his opinion by an additional note, and doubles his tongue. When near her form, and the ſcent lies warm and ſtrong, all double and treble their notes.

Beware of the counter trailing, which may happen when dogs are caſt off, ſo as to challenge about the middle of her works, or nearer the form than the feed; there the ſcent lies ſo equal, that the dogs, over eager and buſy, often hit the heelway, or draw amiſs; this the huntſman muſt judge of by the notes his dogs firſt challenge in. If they double and carry it on counter, they will ſoon ſignify their error, by opening only ſingle; for inſtead of the ſcent lying hotter, and increaſing upon their noſes, it is the contrary, and dwindles to no ſcent at all.

Young hares tread more deep and heavy than old ones, becauſe the younger they are the weaker the joints. At full moon they make moſt work, and go a great diſtance, relieving upon any ſort of feed; eſpecially that which grows within ſhade of the hedge-rows and trees. At this time the buck and doe often aſſociate together.

About this time the huntſman, if he is clever and lucky in this particular, it not only proceeds from eſteem, but that deſirable token of it, field money, which makes many a man neglect his dogs too much, in good trail, to myope about in the hedges and brakes, in expectation of a ſo-ho! To eſpy a hare no rules can be laid down, ſhe generally forms uncertain; whoſoever looks for her, muſt have the idea of a hare ſeated ſtrongly pictured in his mind.

They very ſeldom chuſe to form in high woods in autumn, becauſe the leaves, acorns, and beech-maſt, are continually falling; and in wet weather drops from the trees diſturb them. They rather prefer the dry brake, hedge, or ſtubble.

In *January*, *February*, and *March*, gentlemen hunt in ſome parts till the twenty-fifth, the ſeat moſt uncertain, and wander ſuch a vaſt circuit, an indifferent huntſman may trail all day long, and not ſtart. What adds to their uncertain forming, beſides the ſeaſon of bucking, is, they are ſo liable under warm dry hedges and brambles to be peſtered with piſmires, or moleſted with vipers, and ſuch vermin, that they prefer the open fields and plowed lands.

The huntſman ſhould now lay in his dogs well; rather whiſper than bellow to them, till they undertake it, and go on full cry. Follow at a due diſtance, and as occaſion requires, recheat them: if you have not a horn call them two or three times together, ſoftly! ſoftly! for nought but general emulation reigns, fire with ſon, and ſon with fire contend; impetuous drive the dogs. Beware the inexperienced ſportſman, whether on foot or

horſeback, be ſure check his forwardneſs; many people think a chief part of hunting conſiſts in hallooing loud, and running, or riding hard, but they are miſtaken, and ſuch perſons, gentle or ſimple, muſt not be offended if the huntſman ſwears at them; he has a right to do ſo. No tongue can be allowed but his, nor, at this time, no foot more forward than his own.

A cloſeneſs on the dogs, it is well known, hurries them too much, being apt of themſelves, in their firſt heat of mettle, to overſhoot the game. Many hours ſad ſport has happened from driving the hounds too faſt, and confounding them with the hallooing of the company, or a noiſy blockhead of a huntſman or whipper-in.

As puſs takes her circuit, judgment is often made of her gender. A buck gives ſuſpicion by beating the hard paths, ſtony highways, and taking a ring of a large extent in proportion to the compaſs of his feed and exerciſe, which may be gueſſed at, from the quantity of ground the dog trailed over. It being worthy of notice, that in the progreſs of the chaſe, a hare will go over great part of the trailed land, and viſit her works of the preceding night and morning, unleſs ſhe takes endways, which after a ring or ſo, a buck is apt to do; and loiter a vaſt way on freſh ground, without offering to return.

The doe now and then doubles in a ſhort ſpace, and ſeldom holds an end, unleſs knit; or at the end of the ſeaſon has kindled. At ſuch times ſhe often runs forward; and ſcarce ever returns to her young, or eſcapes with life; being naturally weak and unfit for fatigue.

Yet notwithſtanding all that can be advanced, both ſexes regulate their conduct, much according to the ſeaſon and weather. After a rainy night, in a woody country, neither buck nor doe cares to keep the covert, the wet and drops that hang on the ſprays offend them: therefore they hold the highways or ſtony lanes; for as the ſcent naturally lies ſtrong, they beat the roads that take the leaſt: not that a hare judges upon what ſoil the ſcent lies weakeſt, it is her ears that chiefly direct her; for the hounds being oftener at default on the hard paths than the turf, ſhe finds herſelf not ſo cloſely purſued, by being not much alarmed with the continued cry of the dogs at her heels. The larger the cry, the more ſhe is terrified, and faſter ſhe ſpeeds; the certain effect of which is a heart broken ſooner than with a kennel, in number and goodneſs equal, that ſpent their tongues leſs free.

The ſame principle directs her to ſeek the covert in autumn, when the ground is dry, and wind bleak and cold at north or eaſt; then puſs runs the paths that are covered with leaves, which are ſo continually falling and blowing about, the beſt hound can make but little of her; therefore her alarms being not of long continuance, but ſeldom and ſhort, ſhe reſts contented where ſhe is leaſt diſturbed.

If a hare is trailing to form, on that depends great part of the ſucceſs of the hunt if ſhe is beat up; the firſt ring is a foundation for the ſucceeding paſtime, all the tucks and doubles ſhe afterwards makes, being, in a great meaſure, like the firſt.

According to the ground ſhe runs, the fieldmen are to ſtation themſelves; no two are to ſtand prating together; let each purſue the method he thinks beſt for aſſiſting the dogs, and his own diverſion. This is the time to give proof of good judgment.

If any perſons are lying back, or guarding the ſoil, it is recommended to ſtand alone, as quiet and private as poſſible. Above all, obſerve the wind. Whoever ſits in the wind, a hundred to one he does not ſee the hare, unleſs, at a great diſtance, ſhe drops back, or leaps aſide, for the reaſons before obſerved.

On ſight of the hare, and ſhe happens to *quat*, ſilence will be an argument of great prudence; if the dogs are at default, let them remain ſo, but if ſhe goes forward and will ſpeed, the ſingle view-halloo, if the huntſman is within hearing, is allowable, in order to encourage and give him information what part ſhe bears for.

Beware, above all things, the vile practice of hallooing off the hounds, to lay them in after a view; leaving unhunted ground is the worſt thing that can poſſibly happen. Beſides, it not only ſpoils the dogs, and accuſtoms them at every fault to liſten for the halloo, but it is foul ſport and condemnable.

By this means, if ſhe doubles, he will certainly prick her upon ſome of thoſe places again and again, and be of ſingular uſe to the hounds, in drawing the hot foil. As he pricks her, let him bruſh it out, and re-ſmooth the places; this is the beſt method of treading a foil, and if done with judgment, no hare that holds her foiling can eſcape, if the huntſman is allowed to put it in practice.

It is a rule among ſportſmen, when a hare runs the double, to ſet people to it backwards, in order to meet and oblige her to take freſh ground, the conſequence of which often has been, that having met and hooped her, ſhe has redoubled back a few rods, and leaped off into ſome hedge or brake, and there *quat*, till the dogs (confounded in the midſt of two equal burning heats) paſs her, and come to the dead default.

TRAIN SCENTS [with Hunters] a dead hare or cat dragged along the ground for the training of hounds.

TRAMEL, a machine for teaching a horſe to amble, which is formed after the following manner:

The ſide ropes muſt be made of the beſt, fineſt, and ſtrongeſt packthread, ſuch as *Turkey* thread, and twiſted by the rope-maker into a delicate ſtrong cord, yet muſt not be above the bigneſs of a ſmall jack line, with a nooſe or loop at each end, as ſtrong as poſſible can be made; neither ſhould they be twiſted too hard, but gently and with a yielding quality, which will bring the motion more eaſily on, and prevent the tramel from breaking.

The ſide-ropes muſt be in length thirty ſix inches for a horſe of an ordinary ſtature, and either longer or ſhorter, according to his ſize, and ſo equal one

one with another, that you cannot diſcern any difference.

1. The hoſe which muſt be placed in the ſmall of the fore-leg, and the ſmall of the hinder-leg above the paſtern-joint, muſt be made of fine girth-web, that is ſoft and pliant, and joined with double cotton.

Over the girth-web muſt be faſtened ſtrong tabbs of white neat's-leather well tallowed, ſuited to an even length, and ſtamped with holes at equal diſtances, which may paſs through the nooſes of the ſide ropes, and be made longer or ſhorter at pleaſure, with very ſtrong buckles.

Theſe hoſe are alſo to be made faſt about the horſe's legs, with ſmall buckles, and the hoſe of the girth ſhould be four inches in length, and the long tabbs with the large buckles ten inches.

3. The back-band which is fit for no other uſe but to bear up the ſide ropes, ſhould, if you tramel all four legs, be made of fine girth-web, and lined with cotton; but if you tramel but one ſide, then a common tape will ſerve, taking care that it carries the ſide ropes in an even line, without either riſing or falling: for if it riſes it ſhortens the ſide-rope, and if it falls there is danger of its entangling.

As to the Uſe of the TRAMEL; bring the horſe into an even ſmooth path, and he being made faſt about his legs, untie the long tabbs of his near fore-leg and near hinder-leg; then put to them the ſide-rope, and take care that the horſe ſtand at that juſt proportion, which nature herſelf has formed him in, without either ſtraining or enlarging his limbs, and in that even and juſt length, ſtay the ſide-rope by the ſmall tape faſtened up to the ſaddle; then with your hand on the bridle, ſtraightening his head, put him gently forward, and (if there be occaſion) let another perſon put him forward alſo, and ſo force him to amble up and down the road with all the gentleneſs that may be, ſuffering him to take his own time, that he may thereby come to underſtand his reſtraint, and what motion you would have him perform.

And although he ſhould ſnapper or ſtumble, or perhaps fall now and then, yet it matters not; do you only ſtay his head, give him leave to riſe, and put him forwards again with all gentleneſs, till the horſe finding his own fault, and underſtanding the motion, he will become perfect, and amble in your hand to your ſatisfaction.

For the doing this with the more eaſe and leſs amazement to the horſe, it will not be amiſs if you give the ſide-ropes more length than ordinary at his firſt tramelling, both that the twitches may be leſs ſudden, and the motion coming more gently, the horſe may ſooner apprehend it.

But as ſoon as he is arrived at any perfection in the pace, put the ſides to their true length, for an inch too long is a foot too ſlow in the pace, and an inch too ſhort, will cauſe rolling, a-twitching up of the legs, and indeed, a kind of downright halting.

When the horſe will thus amble in your hand, perfectly with the tramel on one ſide, you may then change it to the other ſide, and make him amble in your hand as before; and thus you muſt do, changing from one ſide to another, till with this half-tramel he will run and amble in your hand without ſnappering or ſtumbling, both readily and ſwiftly.

Having attained to this, which may be effected in two or three hours labour, if there be any tractableneſs, you may put on the whole tramel, with the broad, flat back-band, tramelling both ſides equally, and ſo run him in your hand at the utmoſt length of the bridle along the road ſeveral times; then pauſe, cheriſh him, and to it again: and ply him thus, till you have brought him to amble ſwiftly, truly, and readily, when, where, and how you pleaſe.

Then put him upon uneven and uncertain ways, as up hill and down hill, where there are clots and roughneſs, and where there is hollowneſs and falſe treading.

When the horſe is become perfect in your hand upon all theſe motions, you may ſet a boy or groom upon his back, making him amble, while you ſtay his head to prevent danger, or to obſerve how he ſtrikes.

Afterwards mount yourſelf, and with all gentleneſs increaſe his pace more and more, till he becomes perfect; and as you did before with your hand, ſo do now on his back, firſt with the half tramel, then with the whole, changing the tramel often from the one ſide to the other, and alſo change the ground, which ſhould be done two or three times a day.

When you have brought the horſe to perfection, you may lay aſide the tramel and ride him without it; but do this in a highway, and not in a private ſmooth road, which affords but a deceitful pace, and will be left upon every ſmall wearineſs; therefore pace him on the highway three or four miles in a morning, and in caſe you find him forſake his gait, either through wearineſs, peeviſhneſs, or ignorance, always carrying the half tramel in your pocket, alight and put it on; and thus continue to exerciſe him, giving him eaſe now and then, and at laſt bring him home in his true pace.

TRAMEL. An inſtrument, or device, ſometimes of leather, more uſually of rope, fitted to a horſe's legs, to regulate his motions, and form him to amble.

TRAMELLED. A horſe is ſaid to be tramelled that has blazes or white marks upon the fore and hind-feet on one ſide, as the far foot before and behind.

He is ſo called from reſemblance of the white foot to the hoſes of a half tramel.

CROSS-TRAMELLED HORSE, is one that has white marks on two of his feet that ſtand croſs-wiſe, like St. *Andrew*'s croſs; as in the far fore-foot, and the near hind-foot; or in the near foot before, and the far foot behind.

TRAMEL-NET, is a long net for the taking great and ſmall fowl by night, in champaign countries; much like the net uſed for the low-bell, both in ſhape, bigneſs, and meſhes.

It is to be ſpread on the ground, ſo that the nether or

farther end of it, plumbed with ſmall plummets of lead, may lie looſe thereon; then bearing up the other part, by the ſtrength of men at the foremoſt ends, only trail it along the ground, not ſuffering that end which is borne up to come near the ground by at leaſt a yard; when this is done, at each ſide of the net muſt be carried great blazing lights of fire, by which men ſhould go to raiſe the birds, and as they riſe under the net, ſo take them; after which manner you may paſs over the whole corn-field, or rather champaign ground. *See* Low-Bell *and* Hand-Net.

TRANCHEFILE, is the croſs-chain of a bridle that runs along the bitt-mouth from one branch to the other.

TRAVELLING-HORSE. A horſe fit for journeying, the choice of which conſiſts chiefly in his ſtrength; you are to obſerve that his joints be ſtrong, his paſterns ſhort and ſtraight, without bending in his going, his hoofs tough and hollow; let his nature be temperate, neither too furious nor too dull; and being thus qualified, let him be fed with good hay in the winter, and good graſs in the ſummer; let his provender be good dry oats, peas, beans, or bread, according to his ſtomach, whereof in time of reſt, half a peck at a watering is ſufficient, but in time of labour, as much as he can eat with an appetite.

When you travel him, let him be watered two hours before you ride; then rub, dreſs, and luſtily feed him, after which bridle and let him ſtand half an hour before you back him; and on your journey let him be fed betimes for all night, that he may the ſooner take his reſt; and in the morning travel him moderately, till his wind be racked, and his limbs be warmed, and then proceed as your affairs require; but at night be ſure to water him two miles before you come to your journey's end, then the warmer you bring him to his inn the better; neither walk nor waſh him, the one begets cold, and the other foundering in the feet or body, but ſet him up warm, well ſtopped and well rubbed with clean litter; and give him no meat while his outward parts are hot, or moiſt with ſweat, as the ear-roots, the flanks, the neck, or under his chaps; but being dry, rub him, and feed him according to the goodneſs of his appetite, which to get in him, change his food, or waſh his tongue or noſtrils with vinegar, wine, ſalt, or warm urine: again, ſtop not his feet with cow-dung, till he be ſufficiently cold, and that the blood and humours which were diſperſed be ſettled in their proper places.

Look well to his back that the ſaddle hurt him not, the girths that they do not gall, and his ſhoes that they are large, faſt on, and eaſy: let him neither eat or drink when hot, nor preſently after travel; as to labouring of him, let it be moderate, when the weather is neither extreme hot or cold, that ſo you may avoid extreme heats, and ſudden colds, and travel him not too late, that you may ſee him well dried and fed, before you take your own reſt; neither take the ſaddle ſuddenly off his back.

He may be fed with horſe bread, made of clean beans, peaſe, and vetches, which are very good, and all his meat and drink ſhould be exceeding clean and ſweet; ſtanding water is better for him than river water, which is too piercing: he ſhould be tied in the ſtable with two reins, and often rode on ſtony ways, in order to his better feeling his feet, and hardening his hoofs.

The beſt litter is a bed of wheat-ſtraw, above his knees, though barley-ſtraw is the ſofteſt, but a horſe will covet to eat that which is not wholeſome for him; whereas wheat-ſtraw, though it be not ſo ſoft to lie upon, yet it is wholeſome for him to eat; and as for oat-ſtraw, it is the beſt to lie upon.

As for the dreſſing part, let him be curried twice a day, and be rubbed well with the hands with a rubber; his head ſhould be rubbed with a wet cloth, and his cods rubbed with a dry one, to prevent his being ſcabby between his legs; and his foretop, mane, and tail ſhould be combed with a wet mane-comb, obſerving where the horſe's hair is thinneſt, to curry the gentleſt.

He ſhould be clean and dry in the ſtable, no ſwine lying near it, nor any poultry ſuffered to come within it; and for the ſtable it ſhould always be light, towards the ſouth and north, yet ſo that the north windows in winter may be ſhut cloſe at pleaſure; the planchers ſhould lie even and level, that the horſe may ſtand at eaſe, and not prove lame by too much oppoſing his hinder-feet; there ſhould be no mud-wall within his reach, for he will naturally covet to eat it, than which nothing is more unwholeſome.

In feeding, give him chopt wheat-ſtraw amongſt his provender, it being a great cleanſer of the body, and let the hay-bottles be ſmall, but tied very hard; for ſo your horſe will eat with a better ſtomach, and make leaſt waſte; and as it will prove to be very wholeſome to ſprinkle water upon his hay, ſo fenugreek is ſovereign upon his provender, the firſt being good for wind, and the other for worms. Let him be exerciſed daily, which will beget him a good appetite to his meat.

You may once a year purge him with graſs or green blades of corn, called forrage, for fifteen days together; but before you purge him in any caſe, let him blood, and while he is purging, let him have no provender: and as a horſe after travel has always more blood than any other beaſt whatever, it is therefore good to take blood from him, in order to prevent the yellows or other diſtempers which may enſue.

In caſe you ſhould come late to your inn, ſo that the journey be great and preſſing, and that the horſe refuſes to eat till he has drank, though he be hot, then let his drink be milk given him in the dark, leſt the whiteneſs make him refuſe it, this being both cordial and pleaſant; but if you cannot get milk enough, then mix it with water lukewarm; and if the horſe by labour or any ſurfeit be brought low, lean, and weak, give him to drink mare's milk for many days together, which will ſtrengthen him very much.

When he is at reſt in the winter, water him between ſix and ſeven in the morning, and four and five in the evening, but it is not good to waſh him when he is hot, yet he may be waſhed above his knees, provided you do not waſh his belly, and that you ride him afterwards, and ſo ſet him up and dreſs him; and the purer

the

the water wherein he is washed is, the wholesomer it is, so that it be not extreme cold; if the horse be sick, he must have his water at four times, and not as much as he will drink at once; let him stand two or three hours without meat; and always observe that rubbing much, hard, and well, doth preserve and keep both legs and body in strength, and he delights much therein, and it does much better than a great deal of meat.

In travelling, alight at every steep hill, both to refresh the horse and yourself, look often to the saddle, and his shoes; and after his journey, pick and cleanse the soles of his feet, stuffing them well with ox-dung, as before directed, and anoint his legs with grease, tar, and turpentine. *See* JOURNEY.

TRAVES, a kind of shackles for a horse, that is in teaching to amble or pace.

TRAVERSE, a horse is said to traverse when he cuts his tread crosswise, throwing his croup to one side, and his head to another.

TRAVE, } A place inclosed with rails for shoeing
TRAVISE, } an unruly horse.

TRAVICE, is a small inclosure or oblong quadrangle, placed before a farrier's shop, and consisting of four pillars or posts kept together by cross poles; the inclosure being designed for holding and keeping in a horse that is apt to be unruly or disorderly in time of shoeing, or of any operation.

TREES. A composition having been invented by Mr. WILLIAM FORSYTH, for the preservation of fruit and forest trees, and an examination having taken place, which proved its efficacy, on May 11, 1791, his Majesty was graciously pleased to grant a reward to Mr. FORSYTH, for disclosing the method of making and using that composition; and the following are his directions for that purpose: Take one bushel of fresh cow-dung, half a bushel of lime-rubbish of old buildings, (that from the cielings of rooms is preferable) half a bushel of wood-ashes, and a sixteenth part of a bushel of pit or river sand. The three last articles are to be sifted fine before they are mixed; then work them well together with a spade, and afterwards with a wooden beater, until the stuff is very smooth, like fine plaister used for the ceilings of rooms.

The composition being thus made, care must be taken to prepare the tree properly for its application, by cutting away all the dead, decayed, and injured part, till you come to the fresh sound wood; leaving the surface of the wood very smooth, and rounding off the edges of the bark with a draw-knife, or other instrument, perfectly smooth, which must be particularly attended to; then lay on the plaister, about one eighth of an inch thick, all over the part where the wood or bark has been so cut away, finishing off the edges as thin as possible. Then take a quantity of dry powder of wood-ashes, mixed with a sixth part of the same quantity of the ashes of burnt bones; put it into a tin-box, with holes in the top, and shake the powder on the surface of the plaister, till the whole is covered over with it, letting it remain for half an hour, to absorb the moisture; then apply more powder, rubbing it on gently with the hand, and repeating the application of the powder, till the whole plaister becomes a dry smooth surface.

All the trees cut down near the ground should have the surface made quite smooth, rounding it off in a small degree, as before-mentioned; and the dry powder, directed to be used afterwards, should have an equal quantity of alabaster mixed with it, in order the better to resist the dripping of trees, and heavy rains.

If any of the composition be left for a future occasion, it should be kept in a tub, or other vessel, and urine of any kind poured on it, so as to cover the surface, otherwise the atmosphere will greatly hurt the efficacy of the application. Where lime-rubbish of old buildings cannot be easily got, take powdered chalk, or common lime, after having been slaked a month at least.

As the growth of the tree will gradually affect the plaister, by raising up its edges next the bark, care should be taken, where that happens, to rub it over with your finger when occasion may require (which is best done when moistened by rain), that the plaister may be kept whole, to prevent the air and wet from penetrating into the wood.

A Way to prevent Hares, Rabbits, &c. from peeling off the Bark of young Trees.

Provide a quantity of grease, put it over the fire, and boil it with tar, stirring in the latter till they are well mixed; then take a brush, and rub the mixture over the body of your tree, higher than the reach of the animals. This should be done in the month of *November*, as it is in the winter-time only that animals are obliged, through hunger, to feed on the bark of trees.

TREAD OF A HORSE is good, if it be firm and without resting upon one side of the foot more than upon the other, or setting down the toe or heel one before the other: if he sets his heel first to the ground, then it is a sign that he is foundered in his feet, but if he sets his toes first to the ground, it shews that he has been a draft horse: therefore the whole foot should be set down equally at the same instant of time, and turned neither out nor in.

TREPINGER; is the action of a horse who beats the dust with his fore-feet in managing, without embracing the volt; and who makes his motions and times short, and near the ground, without being put upon his haunches.

This is generally the fault of such horses as have not their shoulders supple, and at liberty, and withal have scarce any motion with them.

A horse may trepinger in going upon a straight light.

TRIDE, a word signifying short and swift.

A tride-pace, is a going of short and swift motions, though united and easy.

A horse is said to work tride upon volts, when the times he makes with his haunches are short and ready. Some apply the word only to the motion of the haunches.

TRIP, OR STUMBLE; a horse is said to trip when he makes a false step.

TRIP,

TRIP (with Hunters). A herd, or company of goats.

TRIP. A ſhort journey.

TRISTA, } A privilege by which a perſon is freed
TRISTIS. } from his attendance on the lord of a foreſt, when he goes a hunting; ſo as not to be obliged to hold a dog, follow the chaſe, or ſtand at a place appointed.

TRIMMER-ANGLING is very uſeful in a mere, canal, or pond, and even in the ſtill part of a river. This requires a round cork, ſix inches in diameter, with a groove on which to wind up your line, except ſo much of it near the hook as will allow the bait to hang about mid-water, and likewiſe ſo much of the other end as will reach to the bank, or a buſh, where it is to be faſtened. In this poſition you may leave it to take its chance, whilſt you are angling elſewhere. As ſoon as the pike takes the bait, and runs away with it, the line unwinds itſelf off the trimmer, without giving him the leaſt check. However, when you come to take up your line, give it a jerk, as in other fiſhing, and then your prey will be more ſecure. This is a good method of fiſhing in the night. *See* ANGLING.

To TROAT, (with Sportſmen) ſignifies to cry as a buck does at rutting time.

TROACHINGS, (with Hunters) the ſmall branches on the top of a deer's head.

TROLL. A certain way of fiſhing for pikes with a rod, the line of which runs out in a reel. *See fiſhing for* PIKE.

TROT; is one of the natural paces of a horſe, which is two legs up in the air, and two upon the ground, at the ſame time croſs-wiſe, or in the form of a St. *Andrew's* Croſs.

As in the amble, the horſe is to be ſtayed upon the hand, and preſſed forward with the calves of the legs of the rider, one after the other; ſo, on the contrary, if the horſe be walking, and you would have him trot, you muſt ſlack your bridle-hand, and preſs him on with both your calves, at one and the ſame time; which will oblige him to advance the hind leg of the ſide with which he did not lead, ſooner than otherwiſe he would do, and ſo move at the very ſame inſtant with the fore-leg of that ſide with which he began to lead, which is the true action of the trot; that is, the hind leg of one ſide and fore leg of the other, at one and the ſame time.

The TROT OF A HORSE is good if it be firm, without reſting upon one ſide of the foot before the other, or ſetting down one toe or heel before the other: ſome horſes, notwithſtanding they raiſe, ſtay, and tread well, have a bad walk, and therefore you are to take notice whether he walks quickly, and alſo lightly on the hand, not preſſing or reſting too much on the bitt, but always changing a point, keeping his head high, with a quick motion of his ſhoulders.

He walks eaſily when his fore and hind feet make but as it were one motion; and ſurely, when he treads firm and ſure, and lifts up his legs indifferently high; but if he does not bend them enough, he will be cold in his walk (as they call it) and apt to ſtrike upon the ſtones and clods.

TROUSSEQUIN, is a piece of wood, cut archwiſe, raiſed above the hinder bow of a great ſaddle, which ſerves to keep the bolſters firm.

There are ſome *Dutch* ſaddles, called *ſelles razes*, which have a low trouſſequin.

TROUT. A delicious freſh water fiſh, which is obſerved to come in, and go out of ſeaſon, with the ſtag and buck, and ſpawns about *October* and *November*, which is the more admirable, becauſe moſt other fiſh ſpawn in warm weather, when the ſun by its heat has cheriſhed the earth and water, making them fit for generation. There are ſeveral ſorts of this fiſh highly valuable; ſuch as the fordage-trout, the armerly-trout, the bull-trout, in *Northumberland*, &c. but it is obſervable, that the red and yellow trouts are the beſt; and as to their ſex, the female has the preference, having a leſs head and deeper body than the male: by their large back you may know that they are in ſeaſon, with the like note for all other fiſh. The trout is of a more ſudden growth than other fiſh: he lives not ſo long as the pearch and divers other fiſhes do, as Sir FRANCIS BACON hath obſerved in his hiſtory of life and death.

They are all the winter ſick, lean, and unwholeſome, and often found to be louſy: theſe trout-lice are ſmall worms, with big heads, ſticking cloſe to the fiſh's ſides, and ſucking moiſture from him that gave them being; neither is he freed from them till the ſpring, or beginning of ſummer, at which time his ſtrength increaſes; then he deſerts the deep ſtill waters, and betakes himſelf to gravelly ground, againſt which he ceaſes not rubbing himſelf till he is cleanſed from that louſineſs: from that inſtant he delights to be in ſharp ſtreams, and ſuch as are ſwift, where he will lie in wait for minnows and *May* flies; at the latter end of which month he is in his prime, being fatteſt and beſt.

They are uſually caught with a worm, minnow, or fly, either natural or artificial. There are ſeveral ſorts of worms which are baits proper for the angler; as the earth-worm, dung-worm, the maggot or gentle; but for the trout, the lob-worm and brandling are accounted the beſt, or ſquirrel-tail, having a red head, ſtreaked down the back, and a broad tail. Take notice, that with whatever ſort of worms you fiſh, they are better for keeping, which may be in an earthen pot with moſs, which muſt be changed once in three or four days in the ſummer, and in twice as long time in the winter.

To avoid confuſion, it may be neceſſary to remark, that the ſame kind of worm is, in different places, known by different names: thus the marſh and the meadow-worm, are the ſame; and the lob-worm, or twachel, is alſo called the dew-worm and the garden-worm; and the dock-worm is, in ſome places, called the flag-worm.

The tag-tail is found in *March* and *April*, in marled lands or meadows, after a ſhower of rain, or in a morning, when the weather is calm, and not cold.

To

To find the oak-worm, beat on an oak-tree, that grows over a highway or bare place, and they will fall for you to gather.

To find the dock-worm, go to an old pond or pit, and pull up ſome of the flags; ſhake the roots in the water, and amongſt the fibres that grow from the roots you will find little huſks, or caſes, of a reddiſh or yelloviſh colour; open theſe carefully with a pin, and take from thence a little worm, pale and yellow, or white, like a gentle, but longer and ſlenderer, with rows of feet down his belly, and a red head: this is the dock or flag-worm. An excellent bait for grayling, tench, bream, carp, roach and dace.

You are to take notice, that of the winds the ſouth wind is ſaid to be beſt. Next to that, the weſt wind is believed to be the beſt. The fiſh lies or ſwims nearer the bottom, and in deeper water in winter than in ſummer; and alſo nearer the bottom in any cold day, and then gets neareſt the lee-ſide of the water.

Fiſh for him with a long line, and not a little hook, and let him have time to gorge your hook, for he does not uſually forſake it, as he oft will in the day-fiſhing: and if the night be not dark, then fiſh ſo with an artificial fly of a light colour, and at the ſnap: he will ſometimes riſe at a dead mouſe, or a piece of cloth, or any thing that ſeems to ſwim acroſs the water, or to be in motion.

The trout delights in ſmall purling rivers and brooks, with gravelly bottoms and a ſwift ſtream; his haunts are an eddy, behind a ſtone, a log, or a bank that projects forward into the river, and againſt which the ſtream drives; a ſhallow between two ſtreams, or, towards the latter end of the ſummer, a mill-tail. His hold is uſually in the deep, under the hollow of a bank, or the root of a tree.

The trout ſpawns about the beginning of *November*, and does not recover till the beginning of *March*.

WALTON has been ſo particular on the ſubject of trout fiſhing, that he has left very little room to ſay any thing by way of annotation with reſpect to baits, or the method of taking this fiſh; yet there are ſome directions and obſervations pertinent to this ſubject, which it would not be conſiſtent with the intended copiouſneſs and accuracy of this work to omit.

When you fiſh for large trout or ſalmon, a winch will be very uſeful: upon the rod with which you uſe the winch, whip a number of ſmall rings of about an eighth of an inch diameter, and at firſt about two feet diſtant from each other; but afterwards diminiſhing gradually in their diſtanees, till you come to the end: the winch muſt be ſcrewed on to the butt of your rod, and round the barrel let there be wound eight or ten yards of wove hair or ſilk line: when you have ſtruck a fiſh that may endanger your tackle, let the line run, and wind him up as he tires.

You will find great convenience in a ſpike made of a piece of the greater end of a ſword-blade, ſcrewed into the hither end of the butt of your rod: when you have ſtruck a fiſh retire backwards from the river, and, by means of the ſpike, ſtick the rod perpendicular in the ground; you may then hold on the line, and draw the fiſh to you, as you ſee proper.

When you angle for a trout, whether with a fly or at the ground, you need make but three or four trials in a place; which, if unſucceſsful, you may conclude there are none there.

In the night the beſt trouts come out of their holes; and the manner of taking them is on the top of the water with a great lob or garden-worm, or rather two, which you are to fiſh with in a place where the waters run ſomewhat quietly, for in a ſtream the bait will not be ſo well diſcerned. In a quiet or dead place near to ſome ſwift, there draw your bait over the top of the water to and fro, and if there be a good trout in the hole, he will take it, eſpecially if the night be dark: for then he is bold, and lies near the top of the water, watching the motion of any frog or water-rat, or mouſe, that ſwims betwixt him and the ſky; theſe he hunts after, if he ſees the water but wrinkle, or move in one of theſe dead holes, where theſe great old trouts uſually lie, near to their holds; for you are to note, that the great old trout is both ſubtil and fearful, and lies cloſe all day, and does not uſually ſtir out of his hold, but lies in it as cloſe in the day, as the timorous hare does in her form: for the chief feeding of either is ſeldom in the day, but uſually in the night, and then the great trout feeds very boldly.

Further Directions for taking a Trout.

If you would do this with ground-bait, in the firſt place you muſt have a neat taper rod, light before, with a tender hazle top. You may angle with a ſingle hair of five lengths, the one tied to the other, for the bottom of the line, and a line of three-haired links for the upper part; and ſo, if he have room enough, you may take the largeſt trout in the river.

He who angles with a line made of three-haired links at the bottom, and more at top, may take trouts; but he who angles with a ſingle hair, ſhall take five to his one; for this fiſh is very quick-ſighted, therefore the angler muſt keep out of ſight, whether it be day or night, and he muſt angle with the point of his rod down the ſtream.

He muſt begin to angle in *March*, with ground baits all day long; but if it prove clear and bright, he muſt take the morning and evening, or elſe his labour will be in vain.

He that angles with ground-bait, muſt fit his tackle to his rod, and begin at the upper end of the ſtream, carrying his line with an upright hand, feeling his plummet running on the ground ſome ten inches from the hook, plumbing his line according to the ſwiftneſs of the ſtream that he angles in; for one plummet will not ſerve for all ſtreams.

For his bait: let him take the red knotted worm, which is very good where brandlings are not to be had.

The minnow (or as ſome call it, the penk) is a ſingular bait for a trout, for he will come as boldly at it as a maſtiff dog at a bear. It will be advantageous to him to uſe a line of three ſilks and three hairs twiſted for the uppermoſt part of the line, and two ſilks and two hairs twiſted for the bottom, next the hook,

hook, with a ſwivel nigh to the middle of his line, with an indifferent large hook.

The minnow is not eaſily found and caught till *March*, or in *April*, for then he appears firſt in the river, nature having taught him to ſhelter and hide himſelf in the winter in the ditches that are near to the river, and there both to hide and keep himſelf warm in the mud or in the weeds, which rot not ſo ſoon as in a running river: in which place if he were in winter, the diſtempered floods that are uſually in that ſeaſon, would ſuffer him to take no reſt, but carry him headlong to mills and weirs to his confuſion. And of theſe minnows, firſt you are to know, that the biggeſt ſize is not the beſt; and next, that the middle ſize and the whiteſt are the beſt: and then you are to know, that your minnow muſt be ſo put on your hook, that it muſt turn round when it is drawn againſt the ſtream: and that it may turn nimbly, you muſt put it on a big-ſized hook, which is thus: put your hook in at his mouth and out of his gill, then having drawn your hook two or three inches beyond or through his gill, put it again into his mouth, and the point and beard out at his tail, and then tie the hook and his tail about very neatly with a white thread, which will make it the apter to turn quick in the water: that done, pull back that part of your line which was ſlack when you put your hook into the minnow a ſecond time; ſo that it ſhall faſten the head, and the body of the minnow ſhall be almoſt ſtraight on your hook; this done, try how it will turn by drawing it acroſs the water, or againſt a ſtream, and if it do not turn nimbly, then turn the tail a little to the right or left hand, and try it again till it turn quick; for if not, you are in danger of not catching any thing; for it is impoſſible that it ſhould turn too quick: and in caſe you want a minnow, then a ſmall loach or a ſtickle-back, or any other ſmall fiſh that will turn quick, will ſerve as well.

If you fiſh for a trout by hand on the ground, take a lob or garden-worm, and put your hook into it a little above the middle, and out again a little below the ſame; then draw your worm above the arming of your hook, making your firſt entrance at the tail, that the point of the hook may come out at the head.

When you fiſh with the minnow, chuſe the whiteſt and middle-ſized, thoſe being the beſt, and ſo place him on your hook, that he may turn round when he is drawn againſt the ſtream.

The beſt way of baiting with the minnow is thus: put your hook in at his mouth, and out at his gill, drawing it through above three inches; then put the hook again into his mouth, and let the point and beard come out at his tail; then tie the hook and his tail about with a fine white thread, and let the body of the minnow be almoſt ſtraight upon the hook: this done, try againſt the ſtream whether it will turn; which it cannot do too faſt: for want of a minnow, a ſmall loach, or ſtickle-back will ſerve.

The angler muſt angle with the point of his rod down the ſtream, drawing the minnow up the ſtream by little and little, near the top of the water; the trout ſeeing the bait, will come more fiercely at it; but the angler muſt not then preſently ſtrike; this is a true way without lead, for many times they will forſake the lead, and come to the minnow. When you fiſh for a trout with a worm, let your line have ſo much, and not more lead than will ſit the ſtream in which you fiſh; that is to ſay, more in a great troubleſome ſtream than in a ſmaller that is quieter; as near as may be, ſo much as will ſink the bait to the bottom, and not more.

How to angle with a Fly for a Trout.

In the firſt place let the angler fit himſelf with a hazle of one piece, or two ſet conveniently together, light and pliable,

The lower part of his line, next the fly, muſt be of three or four haired links; but if he can attain, as aforeſaid, to angle with a ſingle hair, he will meet with more profit and pleaſure.

Before he begins to angle, having the wind on his back, let him try how far he can caſt his line, or at what length his fly, and let him take care that the fly fall firſt on the water; for if any of the line light on the water, he had better to have ſtood ſtill, than to have thrown at all.

He muſt always caſt down the ſtream, with the wind behind, and the ſun before him; it is a great advantage to have either ſun or moon before him.

March is the month for beginning to angle with the fly; but if the weather prove windy or cloudy, there are ſeveral ſorts of palmers that are good at that time: the firſt is the black palmer, ribbed with ſilver: the ſecond a black palmer with an orange tawny body: thirdly, a palmer whoſe body is all black: laſtly, there is a red palmer ribbed with gold, and a red hackle, mixed with orange crewel.

Theſe flies ſerve all the year long, morning and evening, whether windy or cloudy weather, but if the air proves ſerene, he may then imitate the hawthorn fly, which is all black and very ſmall; the ſmaller the better.

He may alſo uſe other flies, as the *May* fly, *&c.* as his fancy leads him. *See the Article* FLY.

TROUT-COLOURED HORSE, is a white, ſpeckled with ſpots of black, bay, or ſorrel, particularly about the head and neck.

TRUSSED. A horſe is ſaid to be well truſſed, when his thighs are large, and proportioned to the roundneſs of the croup.

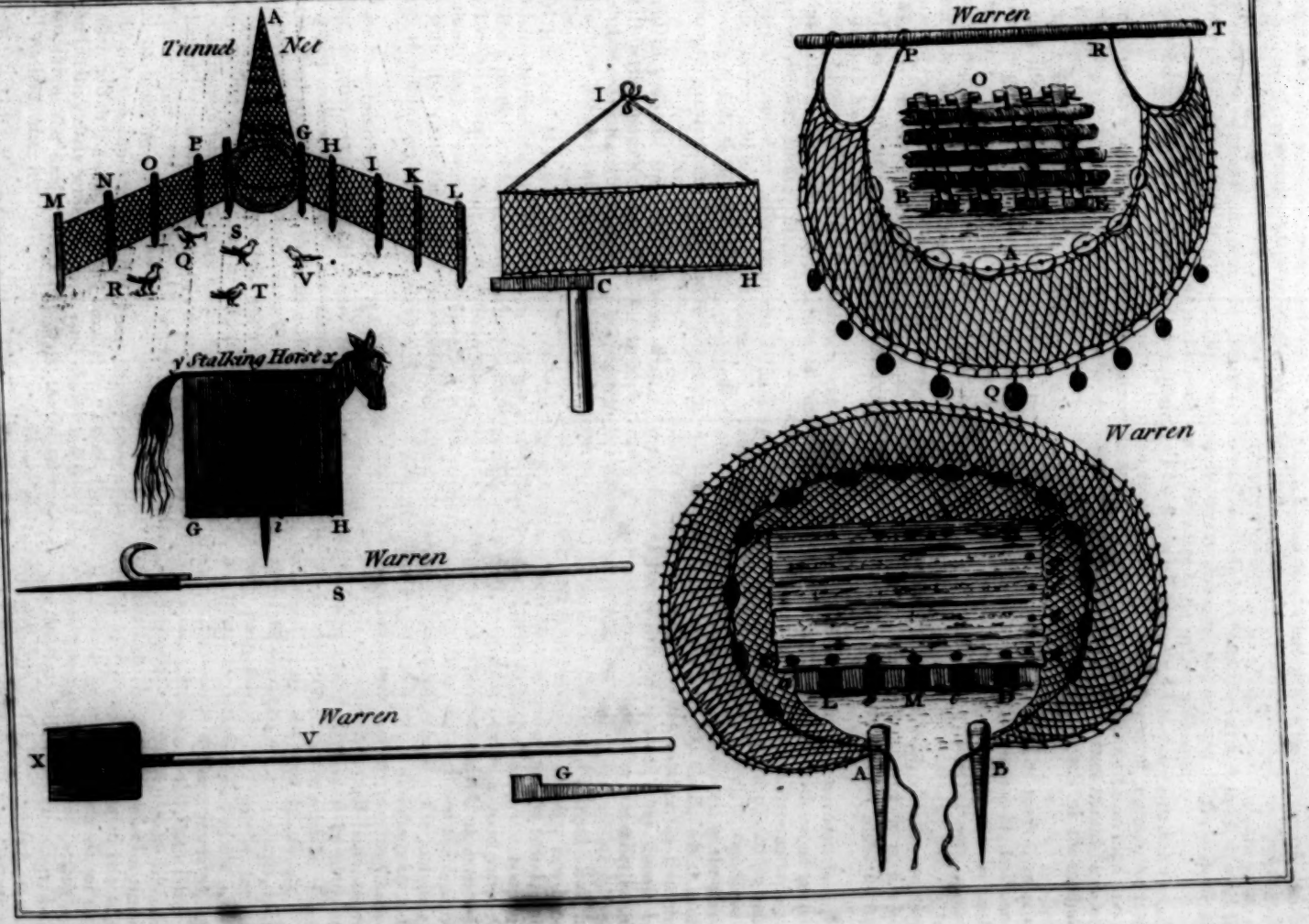
A horſe is ſaid to be ill truſſed, when his thighs are thin, and bear no proportion to the breadth of the croup.

TUEL. The fundament of a horſe.

TUEL [with Hunters]. The fundament of any wild beaſt.

The TUMBLER. The name of this dog is derived from the *French*, *Tumbier*, which ſignifies to tumble; and is called *vertagus* in *Latin*, from *vertere*, to turn or tumble, and ſo they do; for in hunting they turn and tumble, winding their bodies about circularly, and then fiercely and violently venturing on the beaſt, do ſuddenly

Plate IV.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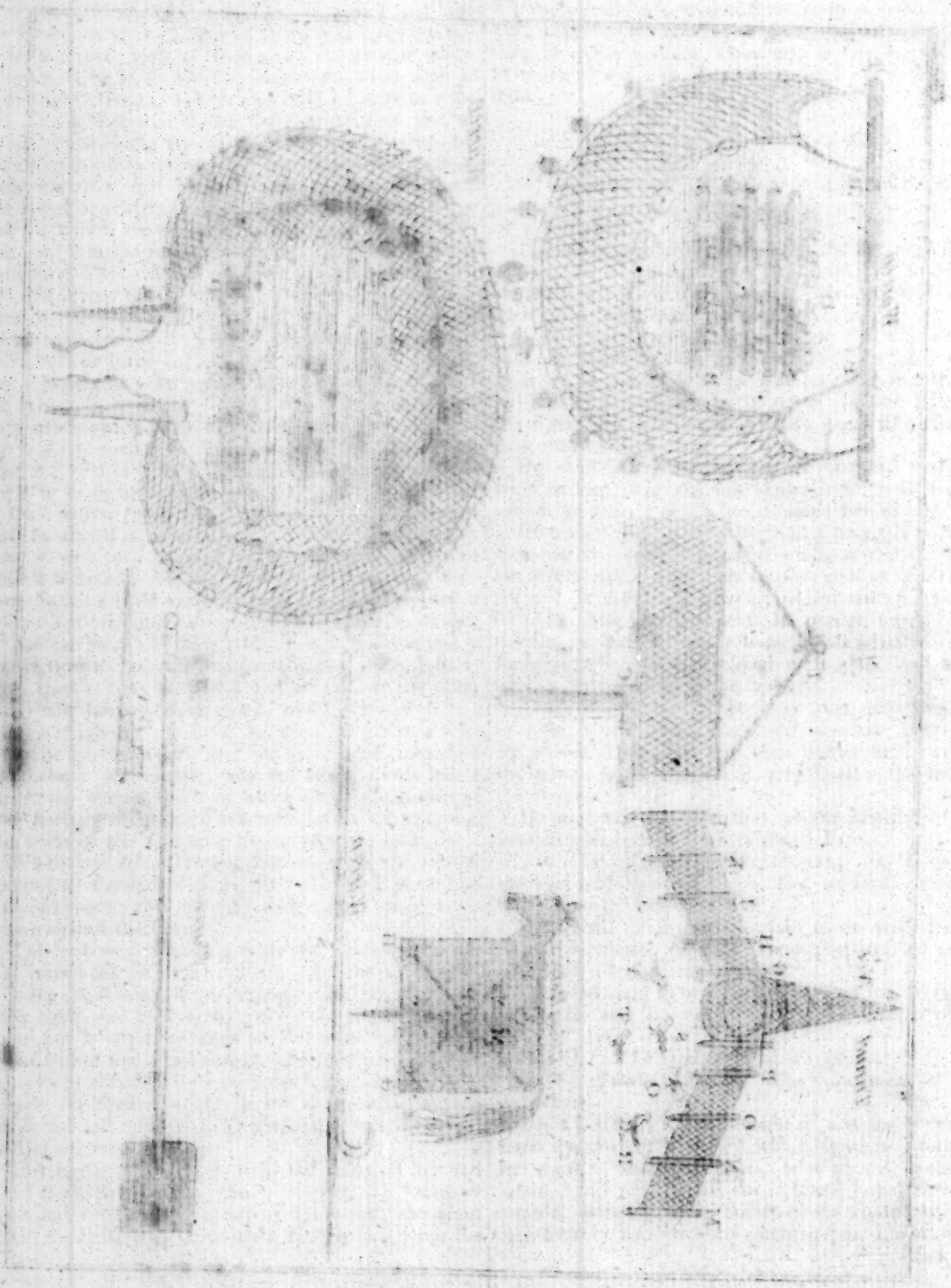

ſuddenly gripe it at the very entrance or mouth of their holes and receptacles, before they can make any recovery of ſelf-ſecurity.

This dog uſeth alſo another craft and ſubtilty; namely, when he runneth into a warren, or fetches a courſe about a coney-burrow, he hunts not after them, nor does any way affright them; he ſhews no ſpite againſt them, but diſſembling friendſhip, and pretending favour, paſſes by with quietneſs and ſilence, marking their holes diligently, where he is ſeldom deceived.

When he comes to a place where there is a certainty of conies, he couches down cloſe with his belly to the ground, provided always that by his ſkill and policy, the wind be againſt him in that enterprize, and that the conies diſcover him not where he lurketh, by which means he gets the ſcent of the conies, which is carried to him by the wind and air, either going to their holes, or coming out; either paſſing this way, or running that way, and by this circumſpection ſo orders his matters, that the ſilly coney is debarred quite from his hole (which is the haven of his hope, and harbour of his ſafety) and fraudulently circumvented and taken, before he can reach his hole.

Thus having caught his prey, he immediately carries it to his maſter, who waits for the return of his dog in ſome convenient lurking place.

Theſe dogs are ſomewhat leſſer than the hounds, being lanker, leaner, and ſomewhat prick-eared.

By the form and faſhion of their bodies, they might be called mongrel greyhounds, if they were ſomewhat bigger.

But though they do not equal the greyhound in ſize, yet they will in the compaſs of one day, kill as many conies as ſhall be a ſufficient load for a horſe; for craft and ſubtilty are the inſtruments whereby they make this ſpoil.

TUMOURS, OR HARD SWELLINGS IN THE LEGS. When the tumours are hard, and of long continuance, take a pint of the horſe's own urine, or that of a cow; half an ounce of flour of brimſtone, and a dram of alum, boil it away to the conſumption of one half; with this chafe the tumour every morning and evening, then dip a rag into it, and wrap it about. Or,

If there are hard tumours in the leg or thigh, either in the ſpring, autumn, or before *Chriſtmas*, take five pounds of green mallow-root (at other times three pounds of the dried roots) pound them to maſh, boil them gently with five quarts of water in a kettle for two hours, then pour in as much hot water as was boiled away, adding a handful and a half of ſage leaves, and continue to boil it an hour and a half, or two hours longer; then taking the kettle off the fire, incorporate the whole with a pound of honey, and half a pound of black ſoap.

Let it cool till you can bear to thruſt your finger into it, and then add to it a pint of ſtrong brandy.

Foment the ſwelling daily with this bath, and chafe it with a handful of the dregs of it, and walk the horſe for half an hour after it.

If you perceive it tends to a ſuppuration omit both, and apply baſilicon.

TUNNEL-NET. A net for taking partridges, which ſhould not exceed fifteen feet in length, nor be leſs than eighteen inches in breadth, or open for the entrance; *ſee* the annexed cut, which ſhews a tunnel ſpread, its length is from the letter A to G, it muſt be made narrow towards the end A, ſo as to have no more than five or ſix inches in height.

This net muſt be made with a three-twiſted thread, that muſt not be too thick, dye it of a green, yellow, or ruſſet colour; the meſhes ſhould be an inch and a half, or two inches broad, the lower ſhould be three, more or leſs, according to the bigneſs of the meſhes. *See* Plate XV.

To carry on your works, inſtead of meſh G to proceed with, take that on the other ſide at H, and continue working round, and ſo to the ſixth or ſeventh row, where you are to take two meſhes at once in one place only, in order to diminiſh the net; you are to do the ſame thing every fourth row, that the net may become narrow by degrees; and when it comes to the point or end, have no more than eight or ten meſhes round.

When the net is finiſhed, you muſt put into the hind meſhes at the larger end, a pretty ſmooth wooden rod, about the bigneſs of a fuzee or muſket-rammer, of which you muſt make as it were a hoop, and tie both ends together on one another, to keep it tight; you muſt add other ſmaller ones by degrees, at the place marked with the letters F, E, D, C, B, which muſt be ſet at ſuch diſtances from one another, as ſuits the proportion of the length of tunnel; they chooſe to make uſe of theſe circles rather than any other form, becauſe they may eaſily be placed in the bottom, between two ridges of corn or fallow ground: now in order to join or faſten the circles to the net, it will be proper to put them into the row of meſhes round, and with that ſome thread to tie both ends of the hoop together, that they may always be in a good poſture; you muſt faſten to both ſides of the circle of entrance, two ſtakes or pegs, to keep the extended net ſtraight enough; you muſt place another at A, of a foot long, at the end of the net, to keep it ſtraight and ſtiff enough; you muſt make two plain halliers to accompany the tunnel net, whoſe meſhes muſt be lozenge-wiſe, or four ſquare; each hallier muſt be ſeven or eight fathoms long, and when they are made, faſten to them, at two feet diſtance, the pegs M, N, O, P, H, I, K, L, about the thickneſs of a little finger, and a foot and a half long, that ſo they may be ſet on both ſides of the tunnel, when you intend to uſe it.

In order to apply this net for the uſe intended, of taking partridges, when you have found out a covey, take a compaſs, and ſo pitch the net at a good diſtance from them, but ſometimes farther, and at other times nearer, according as the ground happens to be; and then ſurround them with your ſtalking-horſe, or ox, and gently drive them towards the net, not coming on them in a direct line, but by windings and turnings, and ſometimes ſtanding ſtill, as if the horſe grazed; if the partridges make a ſtand and look up, it is a ſign they

are afraid, and intend to take wing, therefore make a ſtand, or a little retreat, and when after a little reſpite you find them quiet, and that they are buſy in ſeeking for food, which is a ſign they are not afraid, you may move nearer to them; and if any ſingle partridge lies remote from the reſt, he muſt be fetched in by taking a circumference about him, and thus they may be driven as it were like a flock of ſheep into a pen; but a live horſe fitted for the ſport, far exceeds the artificial ſtalking-horſe, or ox.

The wings of the tunnel muſt not be pitched on a direct line, but inclining to a ſemi-circle; when the partridges are at the mouth of the tunnel, the old ones will ſtand a while as if to conſider, but preſſing gently on, ſome of the young ones will venture in, and then all the reſt will follow; upon which make haſte to ſecure them from returning back, and making their eſcape.

It will be proper to obſerve here, that the letters Q, R, S, T, V, repreſent the partridges in the cut, and as to the ſtalking-horſe, or ox, or cow, repreſented by the ſecond figure, it ought to be made of a piece of canvas, or linen cloth; X, R, G, H, denote the four feet; they ſew ſmall pieces of the ſame cloth at the four corners X, Y, H, E, F, the pieces muſt be two inches broad and ſquare to put into them, and to hold the two ſticks O, P, that croſs one another, and the top of the fork: the ſticks muſt be long enough to keep the cloth well ſtretched, and are to be tied together when they croſs.

The fork ought to be four feet and a half long at the leaſt, having a ſharp pointed end at I, that goes into the ſmall bit of cloth K, the fork and the two ſticks are tied in the middle at L, a piece of cloth G, Y, if ſewed to the ſide like a cow's head, and of the ſame colour with the reſt of the cloth, having an eye and two horns, if it repreſents an ox, or cow, made of ſome pieces of hat; the tail is made of ſome ſmall twine, thread, or any ſuch thing; at the other end X, there ſhould be a ſtick above at X and Y to keep up the head and tail, which laſt ſhould be at ſome diſtance from the body, that it may wag in moving. M and N are two holes to ſee the partridges through. - *See* PARTRIDGE and STALKING-HORSE. *See* Plate XV.

TURKEYS. *See* POULTRY.

TURN. A word commonly uſed by the Riding-Maſters, when they direct their ſcholars to change hands. *See* CHANGE and ENTIRE.

TURNING STRAIGHT [in the Manage] an artificial motion of a horſe: of theſe there are ſeveral ſorts, but I ſhall here only ſpeak of two of them, from which all turnings are derived.

1. Is when a horſe keeps his hinder parts inward, and cloſe to the poſt or center, and ſo coming about makes his circumference with his fore-parts, oppoſing his enemy face to face: in order to which you muſt, to the ring of the hind-part of the caveſſon, fix a long rein of two fathoms or more, and to the two other reins two ſhorter reins; then having ſaddled the horſe, and put on his bitt, bring him to the poſt: put the reins of his bitt over the fore-part of the ſaddle, bolſters, and all, and fix them at a conſtant ſtraightneſs on the top of the pommel, ſo as the horſe may have the feeling of the bitt and curb.

If you would have him turn to the right hand, take the ſhort rein on the left ſide of the caveſſon, and bringing it under the fore-bolſter of the ſaddle up to the pommel, fix it at ſuch a direction, that the horſe may rather look from than to the poſt on the right ſide: this being done, ſome ſkilful groom, or attendant, ſhould hold the right ſide rein of the caveſſon, at the poſt governing the fore-part of his body, to come about at large.

After that, taking the long rein in your hand, and keeping his hinder parts inwards with your rod on his outſide ſhoulder, and ſometimes on his outſide thigh, make him move about the poſt, keeping the hinder parts as a center, and making his fore-parts move in a circumference.

Thus you may exerciſe him for ſome time on one hand, till he attains to ſome perfection, and then changing the rein of the caveſſon, make him do the like to the other hand; ply him in this manner ſeveral mornings, and cheriſh him in his exerciſe according to his deſert, till you have brought him to ſuch readineſs, that he will, upon the removing of the rod, couch his hinder parts in towards the poſt, and lapping the outward fore-leg over the inward, trot about the poſt moſt ſwiftly, diſtinctly, and in as ſtraight a compaſs as you can deſire, or is convenient for the motion of the horſe.

From trotting he may be brought to flying and wheeling about ſo ſwiftly, that both the fore-legs riſing and moving together, the hinder parts may follow in one and the ſame inſtant.

When you have made him thus perfect in your hand, mount his back, appointing ſome ſkilful groom to govern the long rein, and another the ſhort: by the motion of your hand upon the bitt, and ſoft rein of the caveſſon, keep the horſe's head from the poſt: and by means of the calf of the leg laid on his ſide, and your rod turned towards his outward thigh, to keep his hinder-parts to the poſt; labour and exerciſe him till he be brought to the perfection deſired.

Then take away the long rein, and only exerciſe him with the help of the ſhort rein of the caveſſon, and no other; afterwards take both reins of the caveſſon into your hands, and exerciſe him from the poſt, making him as ready in any place where you would ride him, as at the poſt.

2. The other ſtraight-flying-turn, is to keep the horſe's face fixed on the poſt as on his enemy, and to move about only with his hinder-parts, for which you are to take the ſame help of the long rein, and the ſhort rein of the caveſſon, and to govern them as before ſhewed; only you are to give the ſhort rein to the poſt-ward as much liberty as before, but to keep his head cloſer to the poſt, and following his hinder parts with the long rein, by means of your rod, make him bring his hinder-parts round about the poſt; and obſerve, that as he did before lap one fore-foot over another, ſo now he muſt lap the hinder-legs one over another.

Continue to exercise him till he be perfect, as before, then mount and labour him in like manner.

Lastly, leaving the post, and all other helps, ply him only in such open and free places, as you shall see convenient.

TURNING-OFF. Much mischief, and even litigation, has arisen lately from errors in this particular. Be it remembered, that tall or large horses cannot subsist upon a short bite, for the plainest reasons; nor is poor winter grass sufficiently substantial for them. In these circumstances, it is necessary that such horses be well filled twice a day from the crib.

Hay. Salt strewed upon the mow, when making, about a quarter of a pound to three hundred weight of hay, will correct the damp, prevent mould, and render the hay more nutritious and relishing.

In anointing the hides of cattle, cover the hand with a bladder.

TUSHES; are the fore teeth of a horse, seated beyond the corner teeth, upon the bars, where they shoot forth on each side of the jaws, two above, and two below, about the age of three, and three and a half, and sometimes four: and no milk or foal teeth ever come forth in the place where they grow. *See* TEETH.

TWIST; the inside, or flat part of a man's thigh; upon which a true horseman rests upon horseback.

TWISTED. A horse reduced to the same state of impotency with a gelding, by the violent wringing or twisting of his testicles twice about, which dries them up, and deprives them of nourishment.

VARISSE, IN HORSES. An imperfection upon the inside of the ham, a little distant from the curb, but about the same height: there is a bone somewhat high and raised; that part of the ham which is below the said bone sometimes swells by a discharge from the great vein, and is termed *varisse;* this does not make the horse halt, but spoils his sale by growing excessive large. Rest and ease (especially if the part be bathed with spirit of wine) will so bind and restrain it as not to be perceived for the time.

VARVELS. Small silver rings about a hawk's legs, having the owner's name engraven on them.

To VAULT A SHOE, is to forge it hollow, for horses that have high and round soles, to the end that the shoe, thus hollow, may not bear upon the sole that is then higher than the hoof.

But, after all, this sort of shoe spoils the feet; for the sole being tenderer than the shoe, assumes the form of the shoe, and becomes every day rounder.

VAUNTLAY, (with Hunters). A setting of hounds or beagles in a readiness, where the chase is to pass, and casting them off before the rest of the kennel come in.

VENOMOUS BITES. Much hath been said on this subject, and great stress hath been laid on particular medicines; but, to what Dr. MEAD hath proposed, no valuable addition hath been made. The Doctor's method of treating the bite of a mad dog is as follows:

Bleed immediately, and that freely; then give three quarters of an ounce of the following powder, every night and morning, for ten days; at the end of which, plunge the horse into cold water, every morning for a month, or longer.

Take ash-coloured ground-liverwort, two parts; black pepper, one part; powder and mix them well together.

It should be observed, that the first signs of madness in most animals, is a trembling: but, as to a dog, his being mad is thus known. In the first stage of the distemper he hath great hunger and thirst, his eyes become more and more fierce and flaming, he hangs down his ears, thrusts out his tongue, froths at his mouth, barks at his shadow, runs along with seeming sadness and anxiety, often breathes as if tired with running, draws his tail between his legs, runs against all that is in his way, biting whatever he meets with, and seems to be in haste, but his course is uncertain.

Every healthy dog is so sagacious as to discern when another is mad, whether they see him, or hear his barking, and carefully shun him.

A salivation, by means of the turbith mineral, hath been said to have the best effect, even when the symptoms of the hydrophobia are become very considerable. The turbith may be thus given to dogs:

On the first night give twelve grains of turbith; it probably may pass off by vomiting, purging, or both; the next night, give twenty-four grains; and, on the third, forty-eight; and so on, until it salivates. A copious salivation is what is depended on, therefore give more or less of the turbith as it may be necessary thereto.

To a horse, the turbith must be given in larger quantities; such as from twenty to forty grains, and repeated as required, observing the directions given for its use, and in salivations, under the article FARCY.

VENERY. The art or exercise of hunting wild beasts, which are called beasts of venery; as also beasts of forest; and they are the hart, hare, hind, boar, and wolf.

VERDERER. An officer of a forest, *&c.* whose principal concern is to look after the vert, or green hue, and to see that it be maintained: he is further described to be a judicial officer of the king's forest, chosen by the king's writ in the full county-court of the shire where the forest is, and sworn before the sheriff to maintain and keep the assizes and laws of the forest, and also to review, receive, and inroll all the attachments and presentments of all manner of trespasses of the forest relating to vert and venison.

The office of a verderer much resembles that of a coroner, especially in this respect; that, as a coroner, upon notice of a person slain, is to go and view the dead body, and to make inquiry, by the oath of twelve men, how, and by what means the person came by his death, and who, and what, was the occasion thereof; so it is the duty of the verderer, by his office, to look after and view the wild beasts of the forest; for if any of them be found slain, wounded, or hurt, upon notice being given to the verderer, he is to go and view the same, and to cause an inquisition to be made by a jury of twelve men out of four of the next towns, to

know how, and by whom, the ſaid beaſt was killed, wounded, or hurt.

Alſo if an oak, being an overt-vert within the foreſt, be felled or cut down out of the king's demeſne woods, the ſame is to be appraiſed by view of the verderer.

The office of the verderer at the court of attachments, is to ſit there to ſee the attachments of the foreſt, as well of vert as veniſon, and receive the ſame of the foreſters, and others that preſent them there, and then to enter them into their own rolls.

VERT, in general, is every plant growing within a foreſt, bearing a green leaf, which may hide or cover a deer under it; but then this word plant muſt be underſtood to mean ſuch plants as are either trees, woods, buſhes, or ſuch like, which are of the nature either of wood or underwood, and not of thoſe kinds of plants which are of the nature of herbs, as thiſtles, and ſuch like, which may alſo be comprehended within the word plant, but not in this ſenſe.

And when after making the *charta de foreſta*, ſome queſtioned, what was to be accounted vert, King EDWARD I. to make the certainty known to all men, made a law to this purpoſe:

"Know ye, (ſaith he) that all trees that ſhall be growing within the foreſt, as well thoſe that bear no fruit at all, as thoſe that do bear fruit at any time in the whole year; and an old aſh being in the arable land within the foreſt, theſe ſhall be accounted vert, becauſe the king is in poſſeſſion of them."

And it is obſerved, that by vert all trees muſt be underſtood, as well under-woods as great woods; and overt-vert is all manner of high trees, as nether-vert is all ſorts of under-wood; and bruſh-wood is called cabliſh.

Some diſtinguiſh vert after this manner, viz. *vert*, is derived of *veriditate*, in *Latin*, and ſignifies any thing that beareth a green leaf, but eſpecially of great and thick coverts.

Alſo it is of divers kinds; ſome of which bear fruit, that may ſerve for food both for man and beaſt; as ſervice-trees, nut-trees, crab-trees, *&c.* and for the ſhelter and defence of the ſame.

Overt-vert, by ſome called *haut-bois*, from the *French*, which ſignifies high trees, ſerving for food and browſe, of and for the game, and for the defence of them, as oaks, beeches, *&c.* Some haut-bois for ſhelter, browſe, and defence only, as aſhes, poplars, *&c.*

Nether-vert, called alſo *ſub-bois*, or under-wood, are for browſe and food of the game, and for ſhelter and defence, as maple, *&c.* Some for browſe and defence, as birch, ſallow, willow, *&c.* Some for ſhelter and defence, as elder, alder, *&c.*

Of buſhes, and other vegetables, are ſome for food and ſhelter, as the hawthorn, blackthorn, *&c.* Some for hiding and ſhelter, as brakes, gorth or gorz heath, *&c.*

VESSIGNON. A wind-gall, or ſoft-ſwelling on the in and outſide of a horſe's hoof; that is, both on the right and the left of it.

VESSION. An infirmity in horſes, which is a ſort of wind-gall, or ſwelling, about the bigneſs of half an apple, bigger or leſſer, compoſed of a ſoft and ſpongy filth, growing between the fleſh and the ſkin, in the hollow next the hock, and beneath the big ſinew, a little above the capelet and bending of the ham.

This ſwelling appears but very little, except when the horſe reſts equally upon both the hind legs, becauſe when he bends his hams, it is not viſible at all; neither does it often make a horſe halt; it riſes on both ſides the ham, and ſometimes only upon one: thoſe that come lower are not dangerous, and in young horſes may be diſperſed by moderate exerciſe.

VETERINARY TREATMENT, Mr. LAWRENCE in his excellent Treatiſe on Horſes, gives the following inſtructions.

"Amongſt the improvements of theſe latter times, the extenſion of a regularly cultivated ſyſtem of veterinary practice, and the attempts to reſcue the ſuperior claſſes of domeſtic animals from the torturing hand of preſumptuous ignorance, are not the leaſt conſiderable, either in the view of humanity or uſe: it is true, that during the various ages which have paſſed ſince the days of COLUMELLA, the number of writers treating on the veterinary ſcience, according to the beſt medical light which their times afforded, has been conſiderable; but their works had never any very extenſive circulation, competent practitioners were wanted to put their precepts in force, and diſeaſed animals were either totally neglected, or confided to the unmeaning and capricious efforts of the illiterate vulgar: entirely to wipe away this opprobrium of humanity and common ſenſe, would infinitely redound to the credit of the preſent times; and it is conſoling to be able to announce, that attempts are daily making towards that beneficent end, by conſiderate and philanthropic characters, in various parts of our own, and a neighbouring country.

"The endeavour to promote veterinary practice amongſt enlightened men, muſt neceſſarily be a firſt object in a treatiſe profeſſing the principles of humanity: it is our buſineſs then to inquire, what cauſes have hitherto operated, or now ſubſiſt, to prevent or retard its progreſs; to demonſtrate how little they conſiſt with right reaſon, and to propoſe ſuch practicable meaſures, as may effect, by eaſy and gradual ſteps, the deſired reformation.

"Ancient preſcription and a falſe pride amongſt the faculty, compoſe the two-fold cauſe which has hitherto generally deprived our domeſtic animals of the benefits and comforts of regular medical and ſurgical aſſiſtance. Cattle have always been doctored in every country, either by their attendants, or by men pretty nearly upon a level with thoſe in point of education, who on the ſtrength of having learned to perform the moſt ſimple and common operations, and from the want of abler proficients, have undertaken the arduous taſk of preſcribing medicine. We will not wonder, that in former times, ſuch profeſſors were held duly qualified, ſince men impartially committed their own perſons to the hands of ignorant barber-ſurgeons, and ſince ſo many other abſurdities of equal magnitude ſubſiſted, which like ſpectres and ghoſts have vaniſhed at the approach of modern light; but it may well be thought

thought ſurpriſing, in this diſcerning age, when a liberal education is univerſally acknowledged to be abſolutely neceſſary to the acquiſition of medical ſcience, that an illiterate farrier ſhould be entruſted in the cure of diſeaſes. Preciſely the ſame ſtudies, phyſiological, anatomical, and medical, are requiſite for the veterinarian, as the human practitioner. The animal œconomy in its manifold relations is generally and fundamentally the ſame, in men and beaſts, and governed by the ſame laws of nature and natural mechanics; the ſame *materia medica* is univerſally applicable to both, but the greateſt ſkill is requiſite to form a judgment on the diſeaſes of brutes, from their inability to deſcribe their feelings, and the conſequent uncertainty of their pathology. Can there be a greater burleſque, than the ſuppoſition of a man's ability to preſcribe phyſic for a horſe, merely becauſe he knows how to groom or ſhoe him? or might we not alſo, with equal reaſon, employ our own ſhoemakers to take meaſure of our health? The plea of experience is futile, from the utter inability, *primâ facie*, of illiterate and uninformed men to inveſtigate the principles of ſcience, and their total want of opportunity to acquire, even by rote, a rational ſyſtem of practice. The whole ſtock of medical knowledge of theſe practitioners, uſually conſiſts in a certain number of receipts derived from their maſters or fathers, and with which they continually ring the changes in all caſes, right or wrong, hit or miſs; and ſo fiercely are they bigotted to their particular noſtrums, that they are totally incapable of all advice or improvement; the common and unavoidable fate of confirmed ignorance, ſince it is the higheſt point of knowledge, to know that we ſtill need information. They ſometimes cure by luck, ſeldom by wit, but often kill by regularly adapted proceſs. How often has the miſerable patient's ſhoulder been pegged, and blown, and bored, by way of puniſhment, for the folly of getting himſelf ſtrained in the back ſinews of the leg, or coffin-joint! How many pleuritic horſes have been killed outright, by ardent and ſpicy drenches, which might probably have cured the cholic, had they been afflicted with it! How many have been rendered incurably lame, from the patten ſhoe being affixed to the wrong foot: the doctor not being aware of the difference between conſtriction and relaxation! Let not the reader ſuppoſe theſe to be mere flouriſhes, applied to the generality of farriers within my knowledge, I aver them, on the experience of many years, to be literal truths; and by the tenor of them, he may judge of the majority of that faculty throughout *Europe*. Into ſuch hands do we commit diſtempered animals, which have it not in their power to reproach us with their accumulated ſufferings; mankind from prejudice, indolence, and want of feeling, neglecting thoſe creatures which they can purchaſe with their money.

" Dr. HACKET, in his late travels through *Dacia* and *Sarmatia*, relates the following wonderful feat of a farrier at *Roman*, in *Moldavia*. 'It was a hot day, and we having travelled far, one of our beſt horſes fell, and we gave him up for loſt. The farrier, who in *Moldavia* is always a gipſey, comforted us by undertaking to ſet the horſe upon his legs, and recover him perfectly in a quarter of an hour, which engagement he really performed. He did nothing but ſcoop out from each upper eye-lid of the beaſt, a gland the ſize of a hazle-nut, without bleeding him, or uſing any other means whatever, which might occaſion a doubt as to the efficacy of the operation.' Who can be ſo ſceptical as to doubt of the cloſe affinity between cauſe and effect in this cure.

" But the pride of medical gentlemen will not ſuffer them to incur the fancied degradation of becoming horſe and cow doctors; thence the major part of the public is neceſſitated to commit the care of their beaſts to unlearned and empyrical hands; nevertheleſs, were there a cordial and general encouragement, I am convinced there would be no want of able veterinary practitioners. What poſſible ſhame can or ought to be annexed to the practice of veterinary medicine, ſince it is an act of humanity, of important public ſervice, ſince it has engaged the attention and the labours of ſome of the moſt eminent men of both ancient and modern times, and ſince the uncontroulable nature of things has placed the juſt adminiſtration of it out of the power of all but the enlightened? It muſt then be pronounced an honourable office, and altogether fit and becoming the gentleman.

" It hath been related, that veterinary writers have not been wanting; which has been more particularly the caſe during the preſent century, and ſubſequent to the great modern improvements in medicine. Various able practitioners have alſo occaſionally ariſen among us, and in a neighbouring country; but the number of ſuch has been ſo ſmall, that the benefits derived from their efforts have been of courſe confined to a very narrow ſphere. It was many years ago diſcovered in *France*, that the beſt remedy for this defect, and the only adequate method for the general propagation of veterinary knowledge, and the rearing of a ſufficient number of perſons properly qualified in that line, would be to erect public ſeminaries expreſsly dedicated to the purpoſe. We of this country came (ſomewhat late indeed) into the ſame ſalutary meaſure; and a Veterinary College, or Hoſpital for Cattle, has been eſtabliſhed at *London*, another near *Birmingham*, and I believe one or two more are under conſideration, in different parts of the kingdom. The propriety of theſe ſteps, and the benefits derived therefrom, are matter of proof, in the obvious extenſion of veterinary knowledge, and the increaſe of practitioners within theſe few years. Public inſtitutions, provided they are not unduly favoured with excluſive privileges, or armed with coercive and reſtrictive powers, are ever moſt efficacious and contributory to the advancement of ſcience; a prominent inſtance of the truth of which we are at this moment witneſſing, in the late eſtabliſhment of a board of agriculture, which in its infancy has already conferred benefits of the moſt important nature on the country, and in a much larger proportion than could poſſibly have been experienced from mere private exertions, or thoſe of ſocieties, however favourably conſtituted, during a great length of time. To make uſe of a homely proverb, that which is every body's buſineſs

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is uſually held to be no man's buſineſs, and therefore demands the foſtering hand of the community: the ſcattered rays of knowledge are by joint and public means beſt collected into a common focus or centre, whence they are with more eaſe and expedition diffuſed and circulated throughout the whole body of the commonwealth.

"For the ſatisfaction of ſuch of my readers at a diſtance from the metropolis, who may yet be uninformed, and out of reſpect to a public inſtitution, the principle of which has my moſt cordial approbation, I ſhall give a ſhort account of the veterinary college, firſt eſtabliſhed in the year 1792, at St. *Pancras*, *London*. The public are indebted for this truly national foundation, to the diſcernment and patriotic principles of the Agricultural Society of *Odiham* in *Hampſhire*, and for the firſt very celebrated profeſſor, the late CHARLES VIAL DE SAINT BEL, to the judicious recommendation of the Earls GROSVENOR and MORTON, the former of which noble lords, is the greateſt breeder of horſes, I believe, which has ever been in *Britain*. SAINT BEL had previouſly ſignalized himſelf in this country, as a veterinary anatomiſt, by his memorable diſſection of the famous race-horſe Eclipſe.

"The veterinary college is ſupported by annual, or perpetual ſubſcription. The annual ſubſcription is two guineas, but the prompt payment of twenty guineas, conſtitutes a ſubſcriber for life; and in one inſtance, the inſtitution has ſhared the bounty of parliament.

"I cannot ſo well deſcribe the views and objects of this inſtitution, as from the ſhort ſtatement printed by the authority of the governors, of which the following is an abſtract:

'The grand object is the improvement of veterinary knowledge, in order to remedy the ignorance and incompetency of farriers, ſo long and univerſally complained of; for this end a large piece of ground has been provided, and a range of ſtables, a forge, a theatre for diſſections and lectures, with other buildings, have been erected; a medical gentleman, of ſuperior abilities, has been appointed profeſſor, with other requiſite officers, at an expence, large in the aggregate, but at ſalaries not individually greater than were conſonant to the ſtricteſt rules of economy.

'The anatomical ſtructure of quadrupeds, horſes, cattle, ſheep, dogs, &c. the diſeaſes to which they are ſubject, and the remedies proper to be applied, are inveſtigated and regularly taught; by which means, enlightened practitioners of liberal education, whoſe whole ſtudy has been devoted to the veterinary art, in all its branches, may be gradually diſperſed over the kingdom, on whoſe ſkill and experience confidence may be ſecurely placed.

'Pupils to the college, in addition to the lectures and inſtructions of the profeſſor, and the practice of the ſtables, at preſent enjoy (from the liberality of ſome of the moſt eminent of the faculty) the advantage of free admiſſion to their medical and anatomical lectures. Theſe pupils, previous to leaving the college, are ſtrictly examined by a medical committee, from whom they receive a proper certificate, and ſeveral, examined and approved, have already left the college, and are at this time practiſing in various parts of the country with great ſucceſs.

'Subſcribers have the privilege of ſending their diſeaſed animals to the college, without farther expence than that of their daily food, and theſe in general form a ſufficient number of patients for the practice of the profeſſor and pupils. On fixed days, the profeſſor preſcribes for animals belonging to ſubſcribers, who find it inconvenient to ſpare them from home, provided the neceſſary medicines be furniſhed and compounded at the college: ſubſcribers horſes are alſo there ſhod at the ordinary prices.

'His royal highneſs the commander in chief, having been pleaſed to appoint a board of general officers, to take into conſideration the objects of this inſtitution, they have reported the continual loſs of cavalry to have been very heavy, from the total ignorance of thoſe who have hitherto had the veterinary department in the army; this report his majeſty has approved, and henceforward, to qualify for the military ſervice, a farrier muſt be provided with a regular certificate from the veterinary college. To this I may add, from a late advertiſement in the newſpapers, that a number of gentlemen, ſubſcribers to the inſtitution, attend once a fortnight at St. *Pancras*, for the purpoſe of inſpecting the diſcipline of the ſtables.'

"It would be intirely ſuperfluous in me, to make uſe of any arguments in favour of an eſtabliſhment, the neceſſity and public advantages of which, are ſo ſtrikingly obvious; I ſhall only obſerve, how fully ſenſible I feel of the liberality and patriotiſm of thoſe gentlemen who have ſtood forth as patrons and ſubſcribers, and how much I regret, that there ſhould yet be ſo many perſons of property, having the higheſt intereſt in the ſervices of horſes, and yet grudging or neglecting to beſtow a ſmall pittance towards the promotion of veterinary improvements, whilſt they are often ſo ready to laviſh immenſe ſums in trifling or ſtupid gratifications.

"Were I thoroughly qualified to judge of the practice of the veterinary college, it would not be in my power to deſcribe it, having no connection there, or means of information on that ſubject; but the public may be well ſatisfied thereupon, from the conſideration that the profeſſor muſt be a regular medical man, that his daily experience muſt be great, beſides the manifeſt advantage of a recourſe to the eſtabliſhed mode of practice, and various courſes of lectures of that very able veterinarian, the firſt profeſſor. From late inquiries, however, I have learned, that the college practice has in general been very ſucceſsful, and much to the ſatisfaction of the ſubſcribers, ſome few inſtances of failure excepted, in which the prejudice of the reporters (who ſeemed to demand infallibility in a college) formed the moſt conſpicuous feature of the report. Of their form of ſhoes, and method of ſhoeing, I can ſpeak from my own obſervation; to the beſt of my knowledge, they are highly judicious, and I hear of no complaints from the owners of the horſes. OSMER'S ſhoe is at length adopted at the college; the natural conſequence of a trifling variation from that of SAINT BEL.

"The

"The veterinary college has lately adopted a very judicious method of diſſeminating the true principles of ſhoeing, by erecting forges in different quarters of the metropolis, where all perſons may at any time have their horſes ſhod, at the common price charged to ſubſcribers. Prejudice, I know, on more important ſubjects, has often been trumpeted forth, as not only harmleſs, but beneficial amongſt men; which indeed would be juſt, were there any general utility in the continuance of ancient abuſes. It is the grand buſineſs of philoſophy to provide a counterblaſt for theſe intereſted or ignorant trumpeters. It has already been aſked of the advocates for our ſhoeing and ſow-gelding doctors, how they came to ſuppoſe, that leſs medical knowledge would ſuffice to preſcribe for the brute, than for the human animal, which can orally depict his feelings, and verbally aſſiſt the phyſician in forming a correct judgment of his diſeaſe. They ſeem to act upon the ſtrange ſuppoſition, that it is much eaſier for an illiterate man to penetrate at once, as it were by intuition, into the arcana of the ſciences, than for a learned, or well informed, to render himſelf ſkilful in the nature and management of horſes. Can a man be the worſe farrier for having learned the neceſſity of making conſtant obſervations of his own, inſtead of acting by rote, and being guided by a few arbitrary receipts; for knowing the nature of the medicines he preſcribes, the anatomy and animal functions of the horſe, and for the making all ſuch knowledge his peculiar ſtudy? Now that witches, and ghoſts of all kinds are flitting apace off the ſcene, it is full time for men to lay aſide the expectation of all other uncauſed effects.

"It ought never to be forgotten, that all improvements in the treatment of beaſts have been made by gentlemen and men of ſcience; and to the leſſons of ſuch, received at firſt with averſion, and inculcated by ſlow degrees, the preſent race of grooms and farriers owe their ſuperiority over their predeceſſors. Preciſely the ſame remark is applicable to farmers, and if we except Ellis of *Gaddeſden*, who was a man of genius and of an inquiſitive mind, it would be difficult to find one who has ever been emulous of diſengaging himſelf from the trammels of cuſtom. Yet far be from me the arrogance of paſſing ſentence of condemnation upon the whole body of farriers, in the aggregate, or of aſſerting their total inutility. There muſt neceſſarily exiſt, in ſuch a numerous body, men of talents, and of very extenſive practice; but would not theſe men be rendered ſtill more capable in their profeſſion by the aids of education? The force of authority and preſcription is generally an over-match for the reaſoning faculty. Your horſe is ſick—you apply in courſe to a regular farrier—it is a common caſe, the doctor hits it, and ſucceeds; or nature, reſt, and the untaxed bill of coſts, do the buſineſs. If a complicated and dangerous caſe, I ſay it is ſimply impoſſible, even for a man of genius, upon the ſtrength of his own ſingle experience, and without the benefit of regular medical knowledge (which is the experience of ages) to judge otherwiſe than at random. Well, our empirical methodic now commences with ſome one favourite noſtrum, which failing, he proceeds through his whole *circular routine*—and ſhould the animal poſſeſs ſtamina ſufficiently ſtrong to enable him to ſurvive the rude ſhock of this double diſeaſe, of nature and medicine, he muſt needs make a brave nag all his life after, for ſure a trifle cannot hurt him. Should he chance to die (which ſometimes may happen) it is plainly his own fault, not the farrier's, who has doubtleſs done his beſt for the patient. As to the owner, no one can blame him, ſince, like a good ſubject, he has been guided by the cuſtom of his anceſtors, reſpecting "the wiſdom of paſt ages"—nothing remains but for him to pay his bill, and to ſend for the farrier again whenever he may want him. But it is quite another thing, ſhould a horſe fail at the college, or in the hands of a veterinary ſurgeon; the owner ſhakes his head, with a kind of ſerious look of ſelf-approbation, which almoſt makes him amends for the loſs of his horſe; the tale goes round the circle of his friends—"Ah! no, no, it will never do."---It is preciſely thus at preſent.

"On this topic I am induced to dwell the more particularly, from a motive of juſtice, on account of the irrational prejudice of too many perſons concerned in horſes, againſt the veterinary college.

"Enjoying a public inſtitution in the metropolis, where veterinary ſcience in all its branches is regularly taught and practiſed; it remains for thoſe who intereſt themſelves in the ſafety and well-being of our domeſtic animals, to deviſe and recommend the moſt proper and expeditious methods of a general diffuſion of the benefit throughout the country. Farriers in *London* ought to be adviſed by perſons of influence, to allow their ſons and apprentices the advantage of attending the college lectures, which are given, and which is indeed already practiſed by ſeveral of good repute. Thoſe gentlemen of the medical profeſſion, attending the *London* hoſpitals, whoſe deſtination is for country practice, will ſurely perceive great probable advantage in the acquiſition of veterinary knowledge, even if they have no preſent intention to profeſs that branch of medicine. Buſineſs, as is ſometimes the caſe with young practitioners, may run ſhort at the outſet, and the leiſure time might be both honourably and profitably employed in veterinary practice. Such meritorious and humane occupation could not poſſibly injure the medical character of a gentleman in theſe enlightened times; on the contrary, it would be more probable to procure him connections of the moſt valuable ſort; and might be his paſſport and introduction to the families of ſportſmen. Let me not be here cenſured as too aſſuming, ſince I have frequently heard ſurgeons expreſs themſelves at a loſs what method to take, in order to qualify themſelves for veterinary practice, and even deliberate on the propriety of having recourſe to farriers for that end; others, I have known, commencing their veterinary career with ſcarcely having ever turned over a ſingle page of the veterinary claſſics or even knowing their names; and when, in ſome difficult caſe, which ſurpaſſed their ſlender experience, they have been adviſed to refer to proper authority, they have, in my hearing, expreſſed their wonder, "that men, who lived ſo long ago, ſhould know ſo much." That theſe authors have been too generally

nerally neglected of late, and their deſerts ungratefully forgotten.

"The inquirer will not only find the analogy between brute and human bodies ſufficiently cloſe; the variations of material conſequence few, and eaſily diſtinguiſhable, and, indeed, already diſtinguiſhed to his hand, but alſo the powers and ſpecific effects of medicine upon brute bodies (horſes are chiefly to be underſtood) very accurately aſcertained.

"Purgative medicines lie an unuſual length of time in the body of a horſe, from the great length and conſiderable volume of his inteſtines: BRACKEN found the alimentary canal from the œſophagus, or gullet, to the fundament, to be thirty-five yards in a horſe of middling ſize. Salivation is ſaid, by the laſt mentioned author, and by ST. BEL, not to ſucceed with the horſe, for which they aſſign their reaſons.

"On the head of anatomy, the practitioner need not want ample inſtructions. Our SNAPE, as has been obſerved, made a fair chart of the body of the horſe, from the deſigns of the *Italian* RUINI, upon whom he improved. RUINI was cotemporary with that grand conſtellation of anatomiſts, from VESALIUS and FALLOPIUS, to WILLIAM HARVEY, who in the ſixteenth and ſeventeenth centuries, revived that wonderful and uſeful ſcience, and brought it nearly to the ſame ſtate of perfection in which it is at preſent found. It was at this period, the immortal HARVEY diſcovered the circulation of the blood; unleſs the honour of the diſcovery be more juſtly attributable, as the *Italians* aſſert, to their countryman FRA. PAOLO; however that be, we know that HARVEY was a moſt ſedulous and laborious experimenter, and that the tender-hearted and humane CHARLES, his feelings ſtifled by cuſtom, a far more mighty tyrant than himſelf, furniſhed the operator with deer, in different ſtages of pregnancy, to be cut open alive, for the purpoſes of comparative anatomy.

"GIBSON copied SNAPE's anatomical plates, making certain improvements, which will appear on collation; our latter horſe-anatomiſts have generally taken for their guides the two former. Several perſons, during the preſent reign, have publiſhed the anatomy of the horſe, amongſt whom STUBBS, the juſtly celebrated horſe painter, and BLAINE, a gentleman of the *French* ſchool, are the moſt eminent: the plates of the latter are beautifully and ſkilfully coloured.

"There are many caſes in which it might be advantageous to all parties, for a farrier to act under the directions of a medical gentleman; farther, a medical man, either of town or country, deſirous, but unable from various cauſes to pay a ſtrict perſonal attention to veterinary practice, might, with advantage, retain a farrier of experience for that purpoſe. I have often thought that a horſe ſurgeon, ſituated within ten or twelve miles of *London*, where good paſtures and convenient ſtraw-yards were to be had, and whither, greaſed, worn-down, and foul draft horſes, might be ſent at a moderate expence, for cure and recovery, would render great and much required ſervices to the metropolis.

"A practitioner ſettled in the country, and ambitious of extending the knowledge of hippiatric phyſiology, beſides the theoretic aids above deſcribed, need not be at a loſs for ſubjects for diſſection; his habits of life alſo, will neceſſarily bring him practically acquainted with the horſe, in which, to ſay the truth, ſome of our veterinarians are very defective; and herein it is, that Mr. TAPLIN, who is an experienced horſeman, and a firſt rate judge of the ſtatiſtics of the ſtable, has an indubitable advantage over moſt of his brethren. There is, perhaps, no branch of veterinary practice of ſo material import, as that which relates to indiſpoſitions in the feet, tendons, and ligaments of horſes, and, in that reſpect, mere theory, or even mere ſurgical practice, will always be, to a certain degree, defective. To have thorough ſkill in this matter, to judge correctly of the ſeat of defects, and to detect incipient lameneſs in horſes, requires, I had almoſt ſaid a fellow feeling, with an experimental knowledge of the motions and habitudes of thoſe animals: it is, in truth, neceſſary, that a conſiderable ſpice of the jockey be blended with the veterinarian.

"To thoſe proprietors, whoſe inclinations lead them to doctor their own horſes, my advice is, that they previouſly lay in a ſtock of good ſound theory, from the original authors whom I have already particularized; and that they conſult, as often as poſſible, and always in difficult caſes, with the medical men of their acquaintance: in truth, they may at leaſt aſſure themſelves, that they are not incurring a greater riſk, than truſting their cattle in the hands of common farriers, which, in nine caſes out of ten, is but to rival the practice of the ancient *Babylonians*, who, having no medical men, expoſed their ſick on the highways, to the mercy, good fortune, or the ſkill, of the firſt itinerant preſcriber. In caſe of the incorrigible ſtupidity, or bigotted obſtinacy of a blackſmith (which laſt is by no means uncommon); it may well anſwer the purpoſe of a gentleman who keeps a conſiderable number of horſes, and has, on other accounts, much iron work to do upon his premiſes, to ſet up a forge. The firſt expence is trifling, and one regular ſmith, aſſiſted by a common labourer, would be ſufficient. This plan is ſucceſsfully practiſed by ſeveral gentlemen.

"Many ſportſmen, liberally diſregarding the extraordinary expence, purchaſe all their drugs at apothecaries hall, that they may be at a certainty reſpecting the quality; yet ſurely, there are druggiſts of reputation in *London*, on whom ample dependence might be placed. It muſt immediately and forcibly ſtrike every man's apprehenſion, how much depends, both upon the genuineneſs and good preſervation of the medicines made uſe of; and of the little effect, and probable danger of the moſt judicious preſcriptions, where the ingredients are defective, or not to be depended upon. There are various medical articles in which impoſitions are commonly practiſed, and for which, inſignificant or hurtful ſuccedanea are in uſe: of theſe, I hope I ſhall not forget to caution the reader as they occur.

"The advantages of ready-made medicines are obvious enough, in regard to immediate convenience, and the ſaving of trouble; it were to be wiſhed there were leſs to counterbalance theſe; but, it muſt be acknowledged,

ledged, the temptation of putting off bad and unmarketable drugs in these compositions is great, the hazard of their being stale, considerable; and the uncertainty not a little, in point of accuracy, where it may be reasonably supposed such large masses are compounded. Instances enough are not wanting, where the distribution of the cathartic bases has been so irregular, that one ball has acted as a mere alterant, and another has nearly purged a horse to death. Nor would I encourage any man to expect succotrine aloes, or *Turkey* rhubarb, in these ready-made medicines. I hope the reader will not so far mistake me, as to suppose these remarks levelled at any particular vender, least of all at Mr. TAPLIN; of whose skill as a surgeon, or of the goodness of whose prepared medicines, I have never heard the smallest complaint.

"As to quack-medicines, never-failing nostrums, drinks, and cordials, that always succeed where every thing else fails, and specifics for incurable diseases—

"Doubtless the pleasure is as great,
"In being cheated as to cheat,"

else how are we to account for the never-failing cullibility of man? Does it never occur to the purchasers of these articles, that a regular medical man must surely have as extensive an acquaintance with the family of drugs, chemical or galenical, and that he is, at least, as likely to make a fortunate conjunction between them, as the conjurer who advertises his nostrum? Do they consider the blunders they themselves are likely to make in the application? But the quack does his business by the average, or rather by wholesale; he fires at a flock, and the buyer, or his horse, may chance to be of the number. The philosophy of quack medicines lies upon the surface; any man may understand it, and any man may make them; the only difficulty is to get money to advertise them. As to the pharmaceutical part of the business, chuse your disease, then fix upon the most powerful acknowledged specific, clap in an auxiliary or two, *ad libitum*, disguise them adroitly, and be sure make the composition elegant, *prob. est*. The devil is in it, if specifics wont hit sometimes, and remember, there is no charge for attendance.

"Notwithstanding all which has been repeatedly said upon the subject, and by men much better qualified for the task than myself, it is still necessary to continue giving cautions against the general fondness for medical receipts. Many of these formulæ (particularly those of ancient date) are composed with so little proof of medical knowledge, or rationality, that they appear to be the mere result of knavery or caprice; but granting them ever so well adapted to the curative intention, they must be of extreme uncertain use at best, in inexperienced hands, on account of the professional skill required to form a true judgment of the disease, and the anomalies in the animal system.

"In a little book, published under the auspices of that duke of *Devonshire* who was the proprietor of flying Childers, there are certain cautions applicable to our present purpose, which appear so rational and necessary, that I shall copy them in the author's own words, with very little alteration or addition. I must premise, that this author complains much of the badness of the drug purchased by the country apothecaries in his days, which he asserts were the worthless refuse of the *London* shops; and that he had a horse killed by a farrier's drench; the doctor, it seems, had prepared and boiled another of the same kind, but finding his patient dead, he took home the specific for the next occasion.

"First. Chemical preparations should be had from the most eminent dealers in *London*, which, if kept well stopped in white flint glasses, will preserve their goodness many years.

"Woods and gums. Woods should ever be purchased in the piece: in chips they will not last good above a year; in powder only a few months. Preserve these in boxes of tin or oak, in a dry place.

"Seeds ought to be fresh every year. Roots and herbs, if native, it is highly convenient to cultivate at home. Herbs must be dried annually, roots preserved as woods and gums.

"Beer, prescribed in horse medicine, ought to be clear; if not, prepare by setting it upon the fire and dispuming it, or taking off the scum as it rises.

"Wine prescribed, must not be sharp, or pricked, or adulterated; if pure, but only pricked, boil it awhile. The admixture of cyder, honey, and spirits, is a bad substitute, and quite contrary to the intention of a cordial or restorative; the home-made wines of this country are much in the same predicament. Good sound beer is always to be preferred."

VICES IN HORSES. In order for the prevention, correcting, or curing them, you may use the following directions:

If a horse carries his head or neck awry, strike him twice or thrice with the contrary spur; but if he be very stiff-necked on the right side, and plying or bending on the left, hold the right rein shorter than the other, and when he inclines that way give him sudden checks, having a sharp wire fastened in the reins, that striking in his neck, he may be compelled to hold it straight, taking care to check him upwards, lest he should get a habit of ducking down his head.

If a horse is apt to shake his head and ears upon the least occasion, or move his ears, when he begins to kick, or bite, or cast you, strike him on the head with your wand, and at the same time give him a check with your bridle, and a stroke with the contrary spur, putting him suddenly out of his pace; then make him stop, that he may have leisure to understand your meaning; and do the like when he starts, or when he winches, which is a sign of his designing to bite or strike with his heels.

If a horse ducks down his head, check him suddenly with the bridle, and strike with the spurs, that he may be sensible of his fault: if he be standing, make him bring his head into its right place, as he stands; and when he obeys, be sure to cherish him, and he will soon understand the meaning.

If a horse is skittish and apt to start, so that you are never free from danger, while you are on his back; in

caſe it proceeds from a weak ſight, whereby objects may be repreſented to him, otherwiſe than they really are, give him time to view them well, and then ride him up gently to them; but if he be naturally fearful, and ready to ſtart at the hearing ſtrange ſounds, you muſt inure him to the noiſe of guns, drums, trumpets, &c. and in time he will take delight therein.

If a horſe is reſtive, and refuſes to go forwards, pull him backwards, and perhaps he will then go forwards; and though he rebel a long time, the whip and ſpurs will prevail with him at laſt, if they be given ſmartly, ſoundly, and in time; when once you begin, you muſt continue them till he ſubmits, provided it proceeds from ſtubbornneſs, and not from faintneſs and ſickneſs.

If a horſe rears an end, that is, raiſes ſo high before as to endanger his coming over upon the rider, you muſt give him the bridle, and leaning forwards with your whole weight, giving him both your ſpurs as he is falling down, but forbear to ſpur him as he is riſing, for that may cauſe him to come over upon you.

If he is ſubject to fall down upon the ground, or in the water, nothing is better than a pair of good ſpurs applied when you firſt perceive he is going about to do ſo, which will divert him from thinking any more of it; but if he deſiſts, do not correct him again at that inſtant, for bad horſemen occaſion moſt of theſe vices, by correcting unduly, or out of time; by doing which they are ſo far from making a horſe ſenſible of his fault, that they fright him, and put him into confuſion, and cauſe him at laſt to become reſtive.

If a horſe is apt to run away, you muſt be gentle both with a ſlack curb and keeping an eaſy bridle-hand; firſt walk him without ſtopping, but only ſtaying him by the head by little and little; then trot him a while, and put him again from a trot to a walk, ſtaying him by degrees, and always cheriſh as ſoon as he obeys; and when you find him thus far peaceable, put him off from his trot to a gentle gallop; from that to a trot; and from a trot to a walk, ſtaying him by degrees with a ſteady hand: by uſing this method for ſome time with judgment and patience, it is very likely you may cure him of running away.

If a horſe is apt to fly out violently, it is certain, that the more you pull the bridle rein, and hurt him by ſtraightening the curb, the more he will tug, and run the faſter: in this caſe, therefore, if you have field room enough, whenever you find him begin to run, let him go, by ſlackening the bridle, and giving him the ſpur continually and ſharply till he begin to ſlacken of his own accord.

By treating him in this manner, it is not to be doubted but you will cure him at laſt, there being no remedy like this for a runaway horſe.

Some horſes will not endure the ſpurs when they are given them, nor go forwards, but as it were cleaving and faſtening to them, ſtrike out and go back; if you preſs them hard they will fall to ſtaling, and not ſtir out of the place.

If he be a gelding, it is difficult to break him of his humour; but a ſtone-horſe perhaps may forget it for a time under the conduct of a good horſeman: yet if he once get the maſtery of his riders, he will be very apt to begin a-new again.

To conclude, every gelding, ſtone-horſe or mare, that does not fly with the ſpurs, but obſtinately cleaves to and kicks againſt them, ſhould be looked upon as of a croſs and dogged nature, and is therefore to be abſolutely rejected.

VIGOUR OF A HORSE. In order to judge of this quality, the following rules and remarks are of good uſe:

When a horſe is ſtanding ſtill, keeping him faſt with the bridle-hand apply your ſpurs to the hair of his ſides, which by horſemen is termed pinching; and if you find him impatient under you, gathering himſelf up, and endeavouring to go forwards, champing upon the bitt without thruſting out his noſe, it is a ſign of heart and vigour.

There are ſome horſes that ſhew a great deal of mettle when pinched, but immediately loſe the apprehenſion of it; ſo that though they have a very ſenſible feeling, which proceeds from the thinneſs of their ſkin, yet they are of a dull diſpoſition: of ſuch horſes it may be ſaid, that they are rather tickliſh than ſenſible of the ſpur.

There is a great difference between a mettled horſe and a fiery one; the former deſerves to be highly valued, but the latter is good for nothing. A horſe that is truly vigorous ſhould be calm and cool, move on patiently, and diſcover his mettle but when required.

Then the ſureſt method is to chuſe ſuch horſes as are very apprehenſive of ſtrokes, and are afraid at the leaſt appearance of them; which, at the only cloſing of the legs and thighs, ſeem to be ſeized with fear, and alarmed, and that without fretting or fierceneſs.

A horſe that walks deliberately and ſecurely, without requiring the whip too often, and without fretting goes from the walk to the gallop, and from the gallop to the ſtep again, without being diſquieted; but continually champing upon his bitt, he trots with glibneſs upon his ſhoulders eaſily, ſnorting a little through his noſtrils:

If a horſe is well upon his haunches, has a light and eaſy ſtep, his head firm and well placed, and the feeling of the bitt equal and juſt; I ſay, if he has all theſe qualities, you will ſeldom have cauſe to complain upon account of his price.

I ſhall only add here, by way of advice, that whatever good qualities a horſe may have, that you never give a high price for him, unleſs he be endued with theſe two, of having a good mouth, and being ſenſible of an obedience to the ſpur.

VIVARY. A place either on land or water where living creatures are kept; but in a law ſenſe it is taken for a park, warren, or fiſh-pond.

VIVES, AVIVES, FIVES. } Though this diſtemper goes by three names, yet it is but one and the ſame diſtemper, and are certain flat kernels, much like bunches of grapes, growing in a cluſter, cloſe knitted together in the part affected.

They center from the ears, and creep downwards between

tween the chap and the neck of the horſe towards the throat, and when inflamed they ſwell, and not only are painful to the horſe, but prove mortal by ſtopping his wind, unleſs a ſpeedy courſe be taken for the cure.

They cauſe ſuch difficulty of breathing, and uneaſineſs, that he will oftentimes lie down and ſtart up again, and tumble about after a ſtrange manner.

This diſtemper is occaſioned by drinking cold water, after a violent heat; which cauſing the humours to melt down they fall too plentifully upon the natural glands or kernels: alſo by eating too much barley, oats, rye, rankneſs of blood, *&c.*

The cure. 1. If the vives are not grown ſo large as that the horſe is in immediate danger of being ſtifled, do not open the tumours, but rather endeavour to rot them by taking hold of the kernel with a pair of pincers or plyers, and beating the ſwellings gently with the handle of a ſhoeing hammer, or bruiſing them with your hand, till they become ſoft enough; and they will afterwards diſappear; but this is not to be done till the ſwellings are pretty ripe, which may be known by the eaſy ſeparation of the hair from the ſkin if you pluck it with your fingers.

Having rotted (or in caſe of neceſſity) opened the vives, let the horſe be let blood under the tongue, and afterwards in the flanks; waſh his mouth with ſalt and vinegar; and blow ſome of the vinegar into his ears, rubbing and ſqueezing them hard to make it penetrate; for this will conſiderably aſſuage the pain which it communicates to the jaws.

Then give the horſe to drink a quart of wine with two handfuls of hemp-ſeed pounded, two nutmegs grated, and the yolks of half a dozen eggs, and waſh him gently after for an hour.

About an hour after giving him that draught inject the following clyſter: boil an ounce and half of ſal polychreſtum, finely powdered in five pints of beer; when you have taken it off the fire, put it into two ounces of oil of bays, and ſquirt all in blood warm.

As to our practice in *England*, in the cure of this diſtemper; ſome cut holes where the kernels are, and pick them out with a wire, then fill the hole with ſalt, and at three days end it will run; and afterwards waſh it with ſage juice, and heal it with an ointment made of honey, butter, and tar, or with green ointment, and alſo uſe other means with it; but the efficacious receipts are theſe following:

Take tar, tried hog's-greaſe, bay-ſalt and frankincenſe powdered, of each as much as will ſuffice; melt them together, and with a clout faſtened to a ſtick, ſcrub the place four or five mornings, until the inflamed part become ſoft and ripe; then ſlit the ſkin with your inciſion-knife, let forth the corruption, and heal it with tried hog's greaſe, and verdigreaſe, made up into fine powder: melt them upon a fire, and let not the ſtuff boil more than a walm or two, then put in ſome ordinary turpentine, and ſo ſtir all together till it be cold, and then carefully anoint the ſorrance till it is healed.

Another excellent way is, to take a pennyworth of pepper beaten into fine powder, a ſpoonful of ſwine's greaſe, mix them very well together, and convey the ſtuff equally into both the ears of the horſe, ſo tie or ſtitch them up, then ſhake them that the medicine may ſink downwards, and this being done, let him blood in the neck-vein and temple-vein.

But the moſt common way of cure, and ſuch as our farriers uſe, is to let him blood on both ſides the neck-veins, then to ſcar the ſwelling with a ſmall hot iron, from the root down to the bottom of the ear, till the ſkin looks yellow; the ſame iron being in ſhape ſomewhat like an arrow's head, with three or four ſmall lines drawn from the body of it; and after ſearing, in order to take out the heat of the fire, and to make it ſound again, anoint it with freſh butter, or with hog's-greaſe, and he will do well.

Mr. LAWRENCE recommends the ſame application to be made in this diſeaſe, as he propoſes for the ſtrangles. *See* STRANGLES.

VIXEN or FIXEN. A fox's cub.

ULCER. An ulcer is diſtinguiſhed from a wound by its dry, hard edges, by its diſpoſition to heal, and by the ſharp, thin humour that is diſcharged from its ſurface. It is a too common practice to dreſs wounds with ſharp, ſpirituous dreſſings, inſtead of lint and the common digeſtive ointment; and thus wounds that would readily heal, are converted into troubleſome and tedious ulcers.

Generally, a bad habit of body is the cauſe of ulcers, as well as of their continuance, in which caſe no cure can be performed before the conſtitution is mended. But if it is not owing to the fault of the humours, you muſt endeavour to change it into a wound, by ſoftening the edges, and promoting the digeſtion of the acrid matter into pus: this laſt is done by dreſſing it with the mercurial digeſtive, or by rubbing the ſurface gently with the milder blue ointment, each time of dreſſing, and then applying a pledget of the digeſtive ointment; the edges are generally ſoftened by the ſame means with which digeſtion is promoted; but if that proves inſufficient, touch them at each dreſſing with the lunar cauſtic.

If great pain and inflammation attend ulcers, foment them with a decoction made from wormwood, chamomile-flowers, bay-leaves, *&c.* and if there is a tendency to a mortification, add a pint of rectified ſpirit of wine to each gallon of the fomentation: twice a day may be a general rule for fomenting and dreſſing ulcers, where there is much diſcharge, but once a-day is enough where that is ſmall.

Sometimes ulcers are occaſioned by a foul bone which lies immediately underneath them, and which never can be healed until the faulty part of the bone is removed: this is known to be the caſe when the fleſh appears ſoft and like a quagmire, and when there is a diſcharge of ſtinking, greaſy water, and, by paſſing a probe through the fleſh, for then you perceive that the bone is rough, which in a healthy ſtate is ſmooth. In this caſe, much patience is ſometimes required: ſometimes the caſe is trifling, and in three weeks the faulty part ſeparates; at other times a year will hardly ſuffice for this end; however, if the ulcer is very ſpongy, a cauſtic may be applied upon it as large as the faulty ſcale; and when the bone is quite bare,

dreſs it with dry lint every day; and if there is much diſcharge, let it be dreſſed twice a-day; the dry lint will generally ſuffice. If the carious bone be very foul and ſtink, the lint that lays next the bone may be dipped in tincture of myrrh; if the ulcer is deep, lint may lay next the bone, and fine tow, made into ſoft doſſils, may do to fill up the hollow ſpace, and prevent the fleſh from filling up before the piece of bone is ſeparated, which muſt not be hurried by any forcible method, but left entirely to this gentle one, by which, if the conſtitution is good, the end will be obtained; and, if it is bad, it muſt, by proper medicines and diet, be recruited.

Ulcers may happen on any part of the body: ſometimes they are ſeated on the eye, and their chief diſtinctions are, that they are more ſuperficial, or more deep; more mild, or more untoward and difficult to cure. For the more ſuperficial and mild ſort, the following may be uſed every three or four hours:

Take pure water, four ounces; ſugar-candy, half a drachm; ſugar of lead, ten grains; mixed.

If with this the ulcer begins to dry, but becomes hot and painful, it may have more water added to the ſame quantity of ingredients.

For the deeper, fouler, and more obſtinate kind, the following may be uſed three or four times a-day:

Take four ounces of water; ſugar-candy, half a drachm; white vitriol, two ſcruples; camphor, ten grains; mixed.

If with this the ulcer is moiſt, or becomes foul, make it a little ſtronger by adding more of the ingredients.

Ulcers in the eyes, that are attended with great pain, are relieved by fomenting them with warm milk, tinged with ſaffron (and in which a little gum arabic is diſſolved), two or three times a-day.

If a foul blackiſh water diſtils from the ulcer, dreſs it twice a-day with the following:

Take four ounces of pure water, add to it fifteen grains of verdigris, ten grains of camphor, twenty grains of myrrh, and half a drachm of ſugar-candy.

A fiſtulous ulcer frequently happens on the withers from pinching there with the ſaddle, and neglecting, or improperly treating them: if the bruiſe is diſcovered at the firſt, rub it well two or three times a-day with the following lotion:

Take white vitriol, two drachms; ſugar of lead, twenty grains; water, four ounces; mixed.

Care ſhould be had to diſtinguiſh theſe ſwellings that happen from the ſaddle bruiſing this part, from thoſe that follow, and are the effect of a fever, *&c.* this latter ſort ſhould not be treated with any thing but ſuppuratives; a warm poultice of ſcalded bran ſhould be laid on, and renewed two or three times a-day, until the abſceſs is ripe and burſts; for if an opening is made before the matter is completely digeſted, whether the cauſe of the abſceſs was from a bruiſe, or from ſome other diſeaſe ſettling there, it will equally endanger the part becoming a ſpongy foul ulcer, which accident, if it befall you, will require a pretty large opening, taking care not to injure the ligament of the neck, which terminates near the withers: if the fungus and the diſcharge from it be diſagreeable and troubleſome, dreſs it twice a-day with pledgets dipped in the following:

Take of blue vitriol, half an ounce; diſſolve it in a pint of water; add to it oil of turpentine and rectified ſpirit of wine, of each four ounces; ſharp vinegar, ſix ounces; oil of vitriol, two ounces; mixed.

Fiſtulous ulcers ſhould be laid open to the very bottom, or they will never heal firmly.

It may be neceſſary to obſerve, that we may often in vain purſue the beſt methods of cure by external applications, unleſs we have recourſe to proper internal remedies; for, as all ulcers, difficult to heal, proceed from a particular indiſpoſition of the blood and juices, before the former can be brought into any order, the latter muſt be corrected by alteratives and ſweetening medicines; therefore I adviſe the following method of cure:

The firſt intention in the cure of ulcers is bringing them to digeſt, or diſcharge a thick matter; which will, in general, be effected by the green ointment, or that with precipitate; but ſhould the ſore not digeſt kindly by theſe means, but diſcharge a gleety thin matter, and look pale, you muſt then have recourſe to warmer dreſſings, ſuch as balſam, or oil of turpentine, melted down with your common digeſtive, and the ſtrong-beer poultice over them; it is proper alſo in theſe kinds of ſores, where the circulation is languid, and the natural heat abated, to warm the part, and quicken the motion of the blood, by fomenting it well at the time of dreſſing; which method will thicken the matter, and rouſe the native heat of the part, and then the former dreſſings may be re-applied. If the lips of the ulcer grow hard or callous, it will be neceſſary to foment ſtrongly with a decoction of chamomile and mallows, as hot as can be conveniently applied; then ſcarify ſuperficially the whole part, both longitudinally and tranſverſely, with a fleam or abſceſs lancet, ſo as to entirely penetrate the callous ſubſtance upon the ſurface; after which it muſt be dreſſed with digeſtive ointment twice every day; the fomentations and ſcarifications to be repeated occaſionally, if neceſſary, till the callofity is quite ſloughed off, and comes away with the dreſſings. A proper ointment for the above purpoſe, may be prepared as follows: Take of yellow baſilicon, two ounces; and black baſilicon, one ounce; and melt them together over the fire. When taken off, ſtir in one ounce of turpentine; and, when cool, add half an ounce of red precipitate, finely powdered; the whole to be minutely incorporated upon a ſtone or marble ſlab. As ſoon as the callofity is removed, and the diſcharge comes to its proper conſiſtence, dreſs in general with a ſmall portion of lint, thinly covered with either of the baſilicons, placed under a pledget of tow ſpread with the following digeſtive: Yellow wax and black roſin, each four ounces; Burgundy pitch, two ounces; melt theſe in a pint of oil over a ſlow fire; and, when taken off, ſtir in two ounces of turpentine. For large wounds, where a plentiful diſcharge is required, ſtir into this

quantity

quantity about three ounces of the ſpirits of turpentine, that it may incorporate in getting cool.

Should the wound incarnate too faſt, and fill with fungous fleſh, ſlightly touch ſuch parts with a piece of unſlacked lime, regulating the mode and application by the neceſſity, and repeating it as occaſion may require. When the cicatrix is nearly formed, the cure may be completed by hardening the ſurface with a little tincture of myrrh.

All ſinuſes, or cavities, if no tendinous parts intervene, ſhould be inſtantly laid open, with a biſtory, to their utmoſt extent, and properly filled with a pledget of lint well impregnated with warm digeſtive, and plentifully covered with tow ſpread with the ſame. After a ſecond or third dreſſing, ſhould the inſide of ſuch cavity prove callous, or hard in ſubſtance, it muſt be taken away by the knife, or deſtroyed by the means before deſcribed. If it be ſo ſituated that the parts forbid an entire ſeparation, ſound with the probe, and at its extremity make a counter inciſion through the integuments to meet the probe, till, by paſſing through, it removes any lodgement that may have been left for the matter to corrode, which it will very ſoon do, ſo as in many caſes to affect the bone itſelf. Where the cavity penetrates deep into the muſcles, and a counter-opening is impracticable or hazardous; where, by continuance, the integuments of the muſcles are conſtantly dripping and melting down; in theſe caſes waſhes may be injected, and will frequently be attended with ſucceſs. The following is particularly recommended by Mr. TAPLIN:

Take honey and vinegar, each two ounces; liquefy over the fire; and when cool add tincture of myrrh and tincture of cantharides, each one ounce: mix.—When the ulcer is by theſe means diveſted of its virulence and bad ſmell, the callofity ſloughed off or extracted, and a favourable appearance of incarnation comes on, the dreſſings may be changed from the precipitate digeſtive before deſcribed to pledgets ſpread with LOCATELLUS's balſam, or the following compound: Take white diachylon, two ounces; LOCATELLUS's balſam, one ounce; and melt them over the fire in two ounces of olive oil. Take off; and, when nearly cool, ſtir in an ounce of balſam of capivi, a little at a time, till it is all incorporated.

Theſe ſinuſes, or cavities, frequently degenerate into fiſtulæ, that is, grow pipey, having the inſide thickened, and lined, as it were, with horny callous ſubſtance.

In order to their cure, they muſt be laid open, and the hard ſubſtance all cut away; where this is impracticable, ſcarify them well, and truſt to the precipitate medicine made ſtrong, rubbing now and then with cauſtic, butter of antimony, or equal parts of quickſilver and aquafortis.

When a rotten or foul bone is an attendant on an ulcer, the fleſh is generally looſe and flabby; the diſcharge oily, thin, and ſtinking,; and the bone diſcovered to be carious, by its feeling rough to the probe paſſed through the fleſh for that purpoſe.

In order to a cure, the bone muſt be laid bare, that the rotten part of it may be removed; for which purpoſe, deſtroy the looſe fleſh, and dreſs with dry lint; or the doſſils may be preſſed out of tincture of myrrh or euphorbium. The throwing off the ſcale is generally a work of nature, which is effected in more or leſs time, and in proportion to the depth the bone is affected; though burning the foul bone is thought by ſome to haſten is ſeparation.

Where the cure does not properly ſucceed, mercurial phyſic ſhould be given, and repeated at proper intervals; and, to correct and mend the blood and juices, the antimonial and alterative powders, with a decoction of guaiacum and lime-water, are proper for that purpoſe.

ULCERS, OR FISTULAS IN HAWKS. Sometimes hawks have ulcers and fiſtulas in ſeveral parts of their bodies, which will always run and ſend forth a filthy, fretting, thin and ſaltiſh humour at their nares.

For their cure: ſyringe it often to the bottom with ſtrong alum water, and if you can conveniently put a tent wetted in vinegar and alum in the holes, that will haſten the cure; but do not let the tent reach to the bottom of the ſore.

UMBER. A fiſh which ſome will have to be the ſame as the grayling, and only different in name: it is of the tench kiud, but ſeldom grows ſo big: very few, or any, exceeding the length of eighteen inches. He frequents ſuch rivers as trouts do, is taken with the ſame baits, eſpecially the fly, and being a ſimple fiſh is bolder than the trout: he hides himſelf in winter; but after *April*, appearing abroad, is gameſome and pleaſant, yet very tender mouthed, and therefore quickly loſt after he is ſtruck. *See* GRAYLING.

UMBLES, HUMBLES OR NUMBLES, part of the entrails of a deer.

UNCERTAIN. We call a horſe uncertain that is naturally reſtleſs and turbulent, and is not confirmed in the manage he is put to, ſo that he works with trouble and uncertainty.

UNDOING OF A BOAR [with Hunters], ſignifies the dreſſing of it.

UNITE. A horſe is ſaid to unite, or walk in union, when in galloping the hind-quarters follow and keep time with the fore.

VOLARY. A great bird-cage, ſo large, that birds have room to fly up and down in it.

VOLT. This word ſignifies a round, or a circular tread, and, in general, where we ſay in the Academies to make volts, to manage upon volts, we underſtand a gait of two treads, made by a horſe going ſideways round a center, in ſuch a manner, that theſe two treads make parallel tracts, one larger made by the fore-feet, the croup approaching towards the center, and the ſhoulders bearing outwards. Sometimes the volt is of one tread; as when a horſe makes volts in corvets, and in caprioles, ſo that the haunches follow the ſhoulders, and move forwards on the ſame tread. In general, the way and tract of a volt is made ſometimes round, ſometimes oval, and ſometimes ſquare, of four ſtraight lines; ſo that theſe treads, whether round or ſquare, incloſe a terrain, or manage ground, the middle of which is ſometimes diſtinguiſhed by a pillar, or elſe by an imaginary center, which is there ſuppoſed

ſuppoſed in order to regulate the diſtances and the juſtneſs of the volt.

RENVERSED VOLT. A tract of two treads, made by the horſe, with his head to the centre, and his croup out ſo that he goes ſide-ways upon a walk, trot, or gallop, and traces out a ſmall circumference with his ſhoulders, and a large one with his croup.

This different ſituation of the ſhoulders and the croup, with reſpect to the center, gives this volt the name of renverſed, as being oppoſite in ſituation to the former.

Renverſed volts upon a walk, appeaſe and quiet unruly horſes if they are made methodically.

The ſix volts are made *terra-a-terra*, two to the right, two to the left, two to the right again; all with one breadth, obſerving the ground with the ſame cadence working (tride) ſhort and quick, and ready, the forehand in the air, the breech upon the ground, the head and tail firm and ſteady.

To do the ſix volts, you ſhould have an excellent horſe that is knowing and obedient, and has ſtrength to anſwer them.

To make a horſe work upon the four corners of the volt, is to manage him with that juſtneſs, that from quarter to quarter, or at each of the corners or angles of the volt, he makes a narrow volt that does not take above the quarter of the great volt, the head and tail firm, and thus purſues all the quarters, with the ſame cadence, without loſing one time or motion, and with one reprize or with one breath.

In ſpeaking of volts, we ſay, to put a horſe upon volts, to make him work upon the volts, to make good volts, to embrace the whole volt; that is, to manage ſo that the horſe working upon volts, takes in all the ground, and the ſhoulders go before the haunches.

To paſſage upon volt, or ride a horſe head and haunches in, is to ride him upon two treads, upon a walk or a trot.

DEMI-VOLT. A demi-round of one tread or two, made by the horſe at one of the corners or angles of the volt, or elſe at the end of the line of the paſſade; ſo that being near the end of the line, or elſe one of the corners of the volt, he changes hands, to return by a ſemi-circle, to regain the ſame line.

When he does not return upon this line, we ſay he has not cloſed his demi-volt.

Demi-volts of the length of a horſe, are ſemi-circles of two treads, which a horſe traces in working ſide-ways, the haunches low, and the head high, turning very narrow; ſo that having formed round, he changes the hand to make another, which is again followed by another change of hand, and another demi-volt, which croſſes the firſt. This demi-volt of a horſe's length is a very pretty manage, but very difficult; we may compare it to a figure of eight.

VOMITING. Horſes are often extremely ſick, but never vomit, either naturally or by art: the reaſon is, a peculiar contraction of the gullet, and its ſpiral direction, before it enters into the ſtomach.

However, though the more immediate effects of this evacuation are not to be obtained, art hath its ſubſtitutes, by which the remoter advantages thereof are happily effected, *viz.* ſuch as excite coughing, ſneezing, and ſtraining to vomit.

Aſſa-fœtida, ſavin, horſe-radiſh, green juniper wood, and other ſtimulating and ungrateful things, either ſingly or mixed in any proportion, wrapped in a thin rag, and faſtened to the bit of the bridle, excite a nauſea and coughing.

If a drachm of the powdered leaves of aſſa-rabacca is blown up the noſtrils once or twice a-day, it will very effectually provoke a ſneezing.

URINE. A ſerous or wateriſh excrement derived from the blood, which paſſes from the reins, and is diſcharged through the bladder.

Sometimes a horſe is ſeized with an exceſſive flux of crude and undigeſted urine, reſembling water, by which his ſtrength is drained by degrees: it proceeds from heat and ſharpneſs of the blood, or an inflammation in the kidnies, which, like a cupping glaſs, ſuck in the concocted ſerum from the veins.

The remote cauſes, are the immoderate and irregular working of young horſes, cold rains in the beginning of winter, eating of oats brought over by ſea, which, being ſpongy, draw in the ſpirits of the ſalt water.

As for the cure, the horſe is to be fed with bran inſtead of oats; giving him a cooling clyſter, next day let him blood, the day following inject another clyſter, the next day after that bleed him again, not taking away above the quantity of two pounds of blood at a time; this done, boil two quarts of water, and put it into a pailful of common water, with a large handful of oriental bole beat to powder: mix all well together, and let the horſe take it lukewarm for his ordinary drink morning and evening, giving him full liberty to quench his thirſt, which, in this diſeaſe, is exceſſive; for the more he drinks, he will be the ſooner cured.

As for remedies to provoke urine in horſes, which are often neceſſary,

Take about four ounces of dried pigeon's dung in powder, and boil it in a quart of white-wine; after two or three walms ſtrain out the liquor, give it the horſe blood-warm, then walk him for half an hour, and he will ſtale if it be poſſible.

Another good remedy for a horſe that cannot ſtale, is to lead him into a ſheep-cote, and there unbridle him, ſuffering him to ſmell the dung, and roll and wallow in it; for he will infallibly ſtale before he comes forth, if he be not paſt cure.

This quick effect proceeds from a ſubtile and diuretic ſalt, that ſtreams out from the ſheeps dung, and ſtrikes the brain; ſince by reaſon of the correſpondence of that with the lower parts, it obliges the expulſive faculty to void the urine.

The urinary paſſages are frequently ſtopt by thick phlegm, which will ſcarce give way to the above-mentioned medicines, and therefore recourſe may be had to the following receipt:

Take an ounce of ſaſſafras-wood with the bark, cut it ſmall, and infuſe it in a quart of white wine, in a large glaſs bottle well ſtopped, ſo as two-thirds of the bottle may remain empty: let it ſtand on hot aſhes for about

about ſix hours, then ſtrain out the wine, and give it the horſe in a horn.

This remedy will certainly afford relief, either by urine or ſweat, the matter of which is known to be the ſame.

To cauſe a horſe to ſtale for his benefit in ſome cholics, put two ounces of ſugar of dialthæa to a quarter of a pound of Caſtile-ſoap, beat them well together, make pretty big balls, and diſſolve one of them in a pint and a half of ſtrong beer ſcalding hot; when it is lukewarm give it him in a horn, and let him faſt an hour after.

For a Stoppage of Urine, when a horſe cannot ſtale.

Pound half a pound of anniſeeds, and a handful of parſley-roots; or if you have not them, half an ounce of parſley-ſeeds, pound them, and boil them in a quart of ſtrong white-wine, or for want of that, as much old ſtrong beer; then ſtrain it off, and add a drachm of oyſter-ſhells finely powdered, give it the horſe milk-warm.

Mr. LAWRENCE, in treating of the diſorders in the kidneys of horſes, ſays, ſtrains in the kidneys proceed from violent exertion and overloading. The ſymptoms, difficulty of ſtaling, and frequent attempts; thick, foul, or bloody urine; faintneſs, loſs of ſtomach, and deadneſs of the eyes; inability to back. Theſe injuries being neglected, it is ſaid the horſe will in time become ſurfeited from the imperfect ſecretion of urine, the kidneys being diſeaſed; and that the affair may end in glanders and conſumption. Bleed according to the degree of fever, and the condition of the horſe. A rowel in the belly. Diuretic clyſters. Gum arabic in the water, and half an ounce of ſweet ſpirit of nitre in it, once a day, for a few days. Gentle walking exerciſe, led. The following ball, twice a day: Lucatellus-balſam, one ounce; ſpermaceti, ſix drachms; ſal prunel, half an ounce; mix with ſyrup of marſhmallows, or honey, and anniſeed powder. Should that not ſucceed, make trial of balſam of Capivi, or Straſburgh-turpentine, one ounce; Venice or Caſtile-ſoap, one ounce; nitre, ſix drachms; myrrh powdered, two drachms; ball as before, and waſh it down with a horn or two of marſhmallow decoction ſweetened, or warm gruel. Decoctions of juniper berries, marſhmallows, parſley, and liquorice roots, in which gum is diſſolved, and ſweetened with honey; doſe a pint or two, with a gill of fine old Holland-Geneva; in caſe of much fever the ſpirit to be omitted. The quantity, freedom, and colour of the urine, will determine the ſtate of body, or the horſe's amendment. Sometimes a cure is very tedious and protracted, but it is infinitely ſafer to attend patiently nature's good time, and the operation of mild medicines, than to attempt any haſty and forcible meaſures. The horſe being ſtrong may have gentle phyſic after the cure, otherwiſe ſhould be ſent to graſs. Chronic, or neglected caſes of this kind, are abſolutely incurable in the ſtable; the ſame may be ſaid of ſtrains in the loins, which, if very bad, will require at leaſt a twelvemonth's run, to be thoroughly recovered.

For bloody urine, from falls or bruiſes, from over ſtraining at a hard leap, or a hard ran heat in racing, or any other cauſe; bleed, and give two quarts of milk, or whey, warm, with a gill of peppermint-water, and a ſtrong decoction of two ounces of juniper berries; Iriſh-ſlate, two drachms; ſweeten with honey, or ſyrup of quinces. If the drink be deſired more efficacious, repeat and continue it once a day, with the addition of one ounce to two of Armenian bole in powder; and two drachms, to half an ounce, Japan-earth. Or. The following reſtringent ball twice a day; Peruvian-bark, half an ounce to one ounce. Lucatellus-balſam, or balſam of Peru, half an ounce; Iriſh-ſlate two drachms; elixir vitriol, one drachm; ball with conſerve of red roſes, and ſyrup of poppies. Or. A decoction of logwood and oak bark, ſweetened with honey, doſe one pint.

In a ſuppreſſion of urine from inflammation, paralyſis or numbneſs, or other defect in the kidneys, whence obſtruction, and inability to perform the office of ſecerning the urine from the blood, the body of the horſe will appear diſtended, although his bladder be empty, and he make no motion to ſtale; at leaſt very little water will paſs: in a few days, the legs will be ſwelled, and the tumefaction of the body increaſed to a great degree, with perhaps eruptions and blotches, from the retention of the urinous ſalts in the blood; this caſe demands inſtant relief, and carries with it an apology for vigorous meaſures, ſince the moſt powerful ſtimulants, have to my knowledge proved for a conſiderable time ineffectual. A horſe remaining in this ſtate, the ſecretion of urine being repreſſed two days, may be looked upon as loſt.

If the ſtrength of the horſe will bear it, open ſeveral veins in different parts, drawing to the quantity of from one to two quarts of blood. Immediately give a clyſter, and follow it up with a ball, the ball to be repeated three times in the day, if needed; and the clyſter at diſcretion; ſhould there be a partial and gradual amendment, they may be repeated in a milder form, or ſubſtitutes choſen from amongſt thoſe forms before preſcribed.

The clyſter. Succotrine aloes from one to two ounces, in exceeding fine powder; jalap, two drachms to half an ounce. Nitre well beaten, two to four ounces. Juniper and bay-berries bruiſed, one handful each; Venice-turpentine, two ounces; beat up with the yolks of two eggs. Infuſe in one to two quarts of marſhmallow decoction, or thin gruel, adding one pint linſeed oil. The ball. Juniper-berries pounded, one ounce; ſuccotrine aloes, and ſal prunel, ſix drachms each; ethereal oil of turpentine, from two to four drachms; camphor one drachm; ball with liquorice powder, oil of amber, or preferably with chemical oil of juniper, and honey: make it into two or three balls, for one doſe. Or: in a deſperate caſe, cantharides from one ſcruple to half a drachm; camphor diſſolved in oil of almonds, one drachm to two; nitre and Venice-ſoap each an ounce; mix with ſyrup of marſhmallows. Warm gum arabic water, and ſcalded pollard, if the horſe have any appetite. Lead out well clothed, and walk gently half an hour, the weather

weather permitting. When the kidneys are ſound, mercurial phyſic will ſometimes ſucceed. After the cure, ſtrengthen the kidneys with bark and ſteel, if there remain ſymptoms of debility. If an external application ſhould be thought neceſſary, lay the following cataplaſm, ſpread on a double coarſe flannel, upon the loins of the horſe, and bind it on with a warm covering, previouſly rubbing well into the parts two portions of oil of turpentine, and one of oil of amber. Garlic pounded, and horſe-radiſh, *q. s.* Muſtard-ſeed, one pint; camphor, two ounces; as much green ſoap as will make a plaiſter of due conſiſtence: it may be renewed every two days.

The iſchury (for which the ſtrangury, although in common uſe, is an improper term) often afflicts aged horſes, or ſuch as are hard worked, and hardly uſed. It is an obſtruction at the neck of the bladder, preventing the courſe of the urine, or ſuffering it to paſs only in drops; and ariſes either from an inordinate diſtenſion, and conſequent loſs of elaſticity and force, in the detruſores urinæ, with a paralyſis of the ſphincter muſcle, from the horſe being driven on, and forced to retain his water too long, and other cauſes of debility: or a collection of matter derived from diſeaſed kidneys, or the determination of catarrh or fever. The ſymptoms are obvious, diſtended flanks, ſtraddling, with frequent ineffectual motions to ſtale; but the horſe will ſometimes lie down on his back and roll, as in a cholic.

In the cure of this malady, it is a general rule, to which there is no exception, that all draſtic diuretics (at leaſt in any conſiderable doſes) ſhould be religiouſly avoided: ſince they do but excite a more copious ſecretion of urine from the kidneys, and of courſe increaſe the diſtention of the bladder, its inflammation, or the numbneſs and debility of its muſcles. In a caſe of deſperate neceſſity, no meaſure could be ſo effectual, or ſo ſafe, as an evacuation of the urine by the proper ſurgical operation, which by emptying the bladder, would give opportunity for the recovery of its tone; otherwiſe, bleeding, tender care, and the milder diuretics, with opiates continued. To eſtabliſh a cure, two months graſs, or ſtraw-yard.

The diabetes in a horſe, is either the fatal termination of ſome chronic diſeaſe, or the ſign of a conſtitution too far gone to be worth the attempt at a recovery; but if ſuch an attempt be meditated, it muſt be eſſayed by the long-continued uſe of reſtringents, agglutinants and balſamics, barks, gums, balſams, boles, chalk, logwood, and limewater. Dry nouriſhing diet, with beans and rice.

URIVES. Nets to catch hawks with.

WALK, is the ſloweſt, and leaſt raiſed of a horſe's goings. The Duke of *Newcaſtle* made this motion to be two legs diametrically oppoſite in the air, and two upon the ground, at the ſame time in the form of a St. *Andrew's* croſs, which, in effect, is the motion of a trot.

But latter authors agree, that ſo great a maſter was miſtaken in this point: for in a walk (as any one may obſerve) a horſe lifts two legs of a ſide, one after the other, beginning with the hind leg firſt: as if he lead with the legs of the right ſide, then the firſt foot he lifteth is his far hind foot; and in the time he is ſetting it down (which in a ſtep is always ſhort of the tread of his fore foot upon the ſame ſide) he lifteth his far fore foot, and ſetteth it down before his near fore foot.

Again, juſt as he is ſetting down his far fore foot, he lifts up his near hind foot, and ſets it down again, juſt ſhort of his near fore foot, and juſt as he is ſetting it down, he lifts his near fore foot, and ſets it down before his far fore foot.

And this is the true motion of a horſe's legs upon a walk.

Begin this leſſon in a walk, and end it with a walk.

When you teach your horſe to turn to the right and left, or from one end to another, make him walk at firſt, then teach him upon the trot, and then upon the gallop.

WALKERS. A ſort of foreſt officers appointed by the king to walk about a certain ſpace of ground appointed to their care.

WAR-HORSE. In order to the chuſing ſuch a horſe, take the following directions:

Chuſe one tall in ſtature, with a comely head, and an out-ſwelling forehead; a large ſparkling eye, the white of which is covered with the eye-brows; a ſmall thin ear, ſhort and pricking; if long, well carried, and moving; a deep neck, a large creſt, broad breaſt, bending ribs; broad and ſtraight chine, round and full buttocks; a tail high and broad, neither too thick nor too thin; a full ſwelling thigh, a broad, flat, and lean leg: ſhort paſterned and ſhort jointed.

As for ordering him during the time of his teaching, he muſt be kept high, his food good hay and clean oats, or two parts of oats and one part of beans or peas, well dried and hardened; half a peck in a morning, noon, and evening, is enough.

On his reſting days let him be dreſſed between five and ſix in the morning, and water him between ſeven and eight in the evening.

Dreſs him between three and four, and water him about four or five, and always give him provender after watering; litter him at eight, and give him food for all night.

The night before he is ridden, about nine take away his hay, and at four in the morning give him a handful or two of oats; and when he has eaten them turn him upon the ſnaffle, and rub him all over with dry cloths, then ſaddle him, and make him fit for his exerciſe; when he has performed it, bring him into the ſtable all ſweaty as he is, and rub him all over with dry wiſps; when this has been done, take off his ſaddle, and having rubbed him through with dry cloths, and put on his houſing cloth, then lay the ſaddle on again with the girth, and walk him about gently till he is cool; when ſet him up, let him faſt for two or three hours, and put him to his meat: in the afternoon curb, rub and dreſs him; alſo water and order him as before.

WARBLE. To chirp, ſing, and chatter as a bird does; to ſing in a trilling or quavering way.

WARBLES AND SET-FASTS, (in Farriery) the ſmall

ſmall hard tumours frequently formed on the ſaddle part of a horſe's back, and occaſioned by the heat or uneaſy poſition of the ſaddle, are ſtiled warbles; and if theſe are ſuffered to remain till they turn horny, they are then called ſet-faſts.

The former may be eaſily diſperſed by bathing them with a mixture conſiſting of two parts of camphorated ſpirits of wine, and one part of ſpirit of ſal ammoniac. But it will be neceſſary to rub the latter with the mercurial ointment till they are ſoftened, and at laſt diſſolved. Sometimes indeed they will not yield to this treatment, in which caſe they muſt be taken out with the knife, and the parts treated as a freſh wound.

Warbles may alſo ariſe from an internal cauſe; namely from the heat and richneſs of the blood.

WARRANT A HORSE. The bargain for a horſe, is either attended with the warranty of "ſound, free from vice or blemiſh, and quiet to ride or draw," or he is ſold without warrant, to be taken with all faults; in which latter caſe, the buyer can have no right or pretence to return him, except he prove glandered, which exception I ſuppoſe ariſes from the illegality of ſelling any horſe in that ſtate.

Difficulties having ariſen, and various opinions prevailed, as to the preciſe definition of the term ſound, we ſhall point out what has been hitherto the relative practice, and how far it conſiſts with equity. The late Lord Chief Juſtice MANSFIELD laid it down as a rule, that any horſe ſold for more than ten pounds, ought in law to be ſound, of courſe returnable if otherwiſe; a determination inconſiſtent either with truth or equity in the firſt inſtance, which ought to be the ground of all law, and manifeſtly affording the purchaſer an undue advantage. An unſound horſe may be worth a thouſand pounds.

We ſhall define ſoundneſs to imply, "not diſeaſed, lame, blind, or broken-winded; nor having, at the time of ſale, any impending cauſe thereof." By cuſtom, three days trial are allowed the purchaſer, within which period the horſe ought to be returned for unſoundneſs: but if the defect lie hid, and the horſe can be proved to have been unſound at the time of ſale, a much longer detention does not bar the return of the horſe; on the other hand, if the ſeller can prove the ſoundneſs, it is preſumed the horſe has been damaged whilſt in the cuſtody of the purchaſer, who in ſuch caſe muſt ſuſtain the loſs. In caſes of this nature, as well as all others, juſtice muſt depend on the laſt reſort, upon the judgment and integrity of the evidence.

The impending cauſes of unſoundneſs are various; ſuch as, rottenneſs, defects in the eyes, and wind; ſplents, and ſpavins. For example, a rotten horſe may be bought and ſold as a ſound one; his gaunt, hide-bound, and ill-favoured appearance, being attributed to bad uſage, and want of condition; but death in a few days may convince the buyer of his error. A horſe may chance to be ſold in the inſtant that a cloud in the eye is beginning to occaſion partial blindneſs, or juſt before he becomes lame, from an initient ſplent, or ſpavin; in ſuch caſes, the defect muſt have exiſted at the time of ſale, the warranty was falſe, and the bargain is void. In caſe of warranting a one-eyed horſe, it is uſual to ſay, ſound, "barring the eye;" but ſhould ſuch an one be ſold as ſound, without that remark, he would doubtleſs be returnable.

A diſtinction always exiſts in practice, between unſoundneſs and blemiſhes, which in fact accords both with truth and convenience: the latter may exiſt without impediment to the former.

Blemiſhes conſiſt of broken knees, loſs of hair in the cutting places, mallenders and ſallenders, cracked heels, falſe quarters, ſplents, or excreſcences which do not occaſion lameneſs; and windgalls and bog-ſpavins, if they prevail to any great degree; theſe laſt may have been repreſſed, immediately previous to ſale, and may re-appear in a few miles riding. Neither windgalls nor bog-ſpavins impede a ſound warrant, provided the horſe does not go lame; it may be the ſame, probably, in reſpect to a falſe quarter.

The term quiet, or free from vice, implies, according to eſtabliſhed uſage, that the horſe is neither reſtiff, nor a notorious runaway, kicker or biter; and that he will quietly and obediently permit himſelf to be ſaddled, or accoutred, in the uſual way; this laſt, however, ſome dealers have ventured to diſpute.

The trial of a horſe's ſoundneſs ought to be committed to a perſon accuſtomed to horſes. Our judgment, as to the goodneſs of the wind, is now univerſally guided by the ſoundneſs of the cough; but independent of that criterion, the preternatural heaving of the flanks in a broken-winded horſe, will always be ſufficiently apparent, if he be put upon a ſwift pace. It is neceſſary to try the new purchaſe in all paces, and even to ride him fairly a conſiderable number of miles, in order to diſcover any latent defect, or lameneſs of the ſinews, which may have been patched up with bandage and aſtringents, for the expreſs purpoſe of ſale. This method is very common, and frequently practiſed upon ſpeculation. A man ſays to himſelf, the ſoundneſs of this horſe is indeed very doubtful, I will warrant him however, and give him a chance, if he come back I ſhall be but where I was. It is a frequent practice at the repoſitory, for the auctioneer to ſay, "this horſe is ſound, but the owner does not chuſe to warrant him."

It is by no means proper to have a newly purchaſed horſe ſhod or trimmed, previous to a determination to keep him.

On this eſſential branch of the practice of horſe-dealing, few will be inclined to agree with Mr. TAPLIN, who, in his laſt publication, recommends "that no horſe ſhould be deemed ſound, and ſold with ſuch warrant, but a horſe in a ſtate of perfection, entirely free from lameneſs, blemiſh, and defect, not only at the time of tranſfer, but never known to have been otherwiſe." Had Mr. TAPLIN made a perfect cure of an unſound horſe, he would, no doubt, warrant him ſound, notwithſtanding he had once been otherwiſe.

Having already been made acquainted with the terms, and that the nag is quiet to approach, giving him ſome gentle warning with your voice, you go up to him in his ſtall on the near ſide, and laying your hand on his fore-hand, you proceed from thence to examine his eyes, mouth, and countenance; ſtill holding his

head, and turning your own to the right about, you have a view of the curve of his neck, the height of his fore-hand, and the poſition of his ſhoulder and fore-arm. Returning to his fore-hand, you deſcend to his legs and feet, minutely examining with your fingers every part from above, below, within-ſide, and without. You will not forget the virgin integrity of the knees, ſo much and ſo juſtly in requeſt: ſo difficult is this to repair, either by nature or art, when once violated, that I am almoſt tempted to add it as a fifth, to the four irrevocable things.

Being ſatisfied reſpecting his fore-train, your eye and hand will glance over his back, girting-place, carcaſe, and loin; thence proceeding to his hinder quarter, and the ſetting on of his tail. You will judge how far he agrees in each, and every reſpect, with the rules of proportion laid down. The hinder legs and feet will demand a ſhare of attention full as minute as the fore ones, and that the inſide, or hollow of the hock, be not paſſed without due notice, ſince it often happens that the injuries of hard labour are moſt apparent in thoſe parts. A ſurvey of the other ſide of the horſe concludes the ſtable examination.

Suffer no perſon belonging to the ſeller to be with you in the ſtall during your inſpection, that the horſe may not be rendered unquiet, either deſignedly, or at the mere preſence of an habitual tormentor.

To any reader who may ſuppoſe too great a ſtreſs lain upon a ſtable examination, we ſhall aſſign what is a very forcible reaſon; the examinant will by no means find ſo good an opportunity abroad, when the horſe, according to commendable cuſtom, ſhall have been fired, and ſet upon his mettle, and when his own attention muſt inevitably be divided. The ſtall is alſo a good ſituation in which to judge of the temper of a horſe, his condition, ſound or infirm method of ſtanding.

Your intended purchaſe is now led out in all his glory, and ſo much care has been probably uſed, during the ceremony of bridling and combing, to arouſe his natural, and ſupply him with an addition of artificial fire, that "ware-horſe" is by no means an unneceſſary caution to the by-ſtander. He is taken to a ſpot of ground raiſed for the purpoſe of ſhewing his fore-quarters to advantage. Here you have an opportunity of making another general ſurvey, in a good light. It is in this ſituation you muſt make a final judgment reſpecting that moſt material object, his eyes, taking care to have his head placed favourably for your inſpection. The next conſideration is, the condition of his legs, that he ſtand ſtraight, and do not knuckle with his knees, that his joints do not tremble, (the ſure indication of weakneſs) and that his feet are even and a juſt diſtance apart. Order him next to be walked forward in hand, placing yourſelf immediately behind him, that you may ſee how he divides his legs, whether he be ſtraight in his hams, and go ſufficiently wide behind, and cloſe before. Keep your poſition, and let him trot back, (ſtill in hand) and you will perceive whether he bends his knees, and go free from cutting or knocking, whether his feet be ſound, and his joints free from ſtiffneſs, or injury from hard labour.

After theſe preliminaries, you may permit the jockey in waiting to mount, who ought to exhibit a fair ſpecimen of every pace, walk, trot, canter, and gallop, you having placed yourſelf in the interim, about midway of his intended courſe, forward and back again; in which advantageous ſituation, you may command a view of the horſe, his figure and action, in all directions. In this part of the ſhew, the particulars to be noted chiefly, are how the horſe carries his head, the degree of freedom he poſſeſſes in his ſhoulders, whether he goes well above his ground, and ſafe, whether his haunches follow well, and without over-reaching, and whether he ſubmits to the touch of the ſpur without ſucking in his wind, and ſwelling, which is a ſure indication of a rebellious diſpoſition, and that he obeys with reluctance. As the concluding ſcene, the nag is brought back to that elevated ſpot juſt mentioned, when you take another curſory view of him, and he returns to his ſtable.

But let no perſon, however accuſtomed to horſes, purchaſe one for his own uſe, without previouſly riding him a trial himſelf; a privilege which no dealer of credit refuſes to the extent of two or three miles upon the road, in company with himſelf or ſervant. It is undoubtedly the way to know all that can be known of an animal, in ſo ſhort an acquaintance, firſt to ſee him ridden, and then to ride him yourſelf. You will be enabled to determine, how far his merit is to be attributed to the ſkill or ſpurs of the jockey, how far his condition and wind are to be depended upon, and whether he has been merely pampered for ſale; whether his carriage be adroit, careful, and ſafe, over rough ways; whether he be naturally ſhy and ſkittiſh, or has taken averſion to particular objects; and whether he trot down hill in a firm and compact way, naturally throwing his weight upon his haunches, and bearing light on the hand, or whether he lean forward, as if deſirous of uſing his noſe as a fifth leg. This laſt is a conſideration never to be overlooked. A hack that will not go well down hill, may fairly be pronounced good for nothing, were it only becauſe ſuch good qualification is generally the conſequence of being well-ſhaped, the backward poſition of the ſhoulder, and the inclination forward of the haunches, favouring the attitude moſt proper for deſcent. Laſt of all, there may be ſomething highly diſagreeable in the motions or carriage of a horſe, which a perſon can by no other means diſcover, than by actually riding him.

Much obloquy has, in all periods, fallen upon dealers in horſes, who have been generally ſuppoſed more prone to trick and deception than any other claſs of tradeſmen; but this ariſes perhaps chiefly from the precarious nature of the commodity in which they deal, and amongſt a number of ſhabby and tricking fellows, (which indeed are to be found in all trades) there are no doubt many fair and honourable men in this. Their method of preparing and deeking out their goods for ſale, has always been vehemently decried, as directly calculated for the purpoſes of deception: this is only in part true, as far as the manœuvres are intended to conceal unſoundneſs; as no reaſonable objection can poſſibly lie againſt their endeavours to ſet their horſes off

off to the beſt advantage. The grand complaint is on the behalf of humanity, the laws of which, upon thoſe occaſions, are always outraged, wherefore a change of meaſures would be a deſirable event, and this is evidently in the power of the buyers.

We allude principally to the well-known ſtable diſcipline among dealers, of figging and firing. The firſt is, to thruſt a corn (as it is phraſed) of ginger into the fundament of a horſe, or burden of a mare the inſtant of being led out to ſhew, for the purpoſe of irritation, and of elevating the tail, which is thereby uſually cocked up in a monſtrous and ludicrous manner. Firing is the diſcipline of the whip, which is uſed to arouſe every ſpark of mettle in the horſe. This latter is an everlaſting ſource of cruelty, perpetrated by a race of brutal and inſenſible miſcreants, who would be as little ſcrupulous to derive gain from the torture of their own ſpecies. Horſes, whilſt in ſuch hands, live in a conſtant ſtate of apprehenſion and miſery. Almoſt every hour of the day, the tormentor goes into the ſtable, like a Weſt-Indian Negro-driver, whip in hand, and inflicts the cruelty of the laſh upon each horſe, in order to make him lively and apt to fly, even at the ſound of a man's foot; and this correction from habit, from a deſire of reaping all its imaginary benefit, and from ſuppoſed cauſes of offence, is often performed with the utmoſt force. But the barbarity is never ſo monſtrous, or rather helliſh, as when inflicted upon the debilitated and crippled objects of exceſſive labour. Too much of this is practiſed at the ſales of worn-out poſt-hacks and machiners. All barbarity is totally unneceſſary, for the intent of it is ſo generally known, that it can deceive nobody; nay, it often has the effect of producing ſudden cramps in a horſe, and always of ſpoiling his trot upon a ſhew. All horſes are ſhewn to the beſt advantage by a moderate uſe of the whip. There is alſo a cruel folly prevalent among cow-jobbers, namely, that of ſtocking the cows, as it is called; they oblige theſe creatures to ſuffer the pains of retention, twenty-four, or perhaps forty-eight hours, previous to ſale, that they may have a great ſhew of milk; as if all buyers of cows were not aware of the cuſtom, and of conſequence deception muſt be out of queſtion. The plea that any knowledge of the animal can be thence obtained, is ridiculous, for there are other rules of judging infinitely more certain, familiar to every experienced man. Many cows get inflamed, and even indurated udders from this practice, from which they never perfectly recover.

To return to figging and firing. The *London* dealers, with ſome few exceptions, permit no ſervant to ſhew a horſe, without having previouſly figged him, under a certain forfeit. They aſſert, they are obliged to purchaſe horſes in the country ſhewn in that manner, and that they can do no leſs, in juſtice to themſelves, than to ſhew them under ſimilar advantages in town; the truth is, the cuſtom is inveterate among them, and they can ſee no beauty or merit in a horſe, unleſs he is tranſformed into a Merry-Andrew, and jumps about from ſide to ſide as if diſtracted, knocking his huckle-bones againſt every wall he goes near. But all this is but a poor recommendation to a man of taſte and judgment in horſes, and the dealer thereby often miſſes his mark. As to the practice, as intended to favour deception, or cover unſoundneſs, the remedy is always in the purchaſer's own hands.

There is a prejudice ſomewhat general, but which holds much the ſame relation with truth that prejudices generally do; namely, that good horſes are not to be found in the hands of dealers; and we frequently ſee it inſerted in an advertiſement, by way of additional recommendation of a horſe, that he does not belong to a dealer, or that he has never been in a dealer's hands. It is yet ſtrange, that a man whoſe living is to deal in them, who has ſo many through his hands, who goes to the fountain-head to have them freſh and young, and whoſe intereſt it is to ſell good horſes, ſhould have none of that kind to ſell; and ſomewhat more ſo, that a private perſon ſhould be deſirous of parting with ſo ſcarce and valuable a commodity. I will agree, that a ſecond-hand good horſe is far preferable to a freſh bad one. But upon the average, young and freſh horſes muſt neceſſarily bear the premium; and if a dealer be careful to furniſh his ſtables with ſuch, no blame ought to attach to him; for were he to journey into the country, with the reſolution to buy none but good horſes, his journeys would be many, and his purchaſes few indeed.

Horſes go through the hands of ſeveral deſcriptions of perſons before they reach the metropolis. The conſiderable breeders ſell their colts to another claſs, whoſe buſineſs it is to keep them until they are fit for market and general uſe. Theſe laſt diſpoſe of their horſes either at their country fairs, or through the medium of particular connections in town.

WARREN. A franchiſe, or place privileged, either by preſcription or grant from the king, to keep beaſts and fowls of warren in.

The word now is generally applied to a quantity of ground ſet aſide for rabbits, *&c.*

A warren, as well as other things, requires a proper place and particular ſituation; it ſhould be upon a ſmall aſcent, expoſed to the eaſt or ſouth; the ſoil that is moſt ſuitable to it, is that which is ſandy; for to make a warren in a ſtrong clayey ground, would be the way to hinder the rabbits from making themſelves burrows with eaſe; if the warren ſhould be mooriſh ground, you would reap but little benefit from them, wet being injurious to theſe animals.

A warren, properly ſpeaking, is a coppice which is cut every ten, twelve, or fifteen years, according as the owner thereof thinks fit; otherwiſe he muſt be content to have it according as the ſituation of the ground will allow.

He ought to take all the due precautions, that his warren be ſo contrived, that the rabbits may eaſily habituate themſelves to it: but how to ſucceed therein, men's ſentiments differ: ancient authors, who have wrote upon this ſubject, ſay, that it muſt be ſurrounded with walls; but others think this extravagancy, and that the expence will by much exceed the profit; and indeed we find not many that are ſo incloſed, but every one is at his own liberty as to that.

Mr. CHOMEL's opinion is, that a warren ought to

be encompaſſed by a good ditch; and though ſuch an incloſure cannot hinder the rabbits from going out, at leaſt if it be not filled with water, yet it may be hoped no damage may accrue therefrom, when once they are accuſtomed to the place, to which they will keep, though there be neither walls nor ditches to hem them in. He that makes a warren, is at liberty to make it as large as he pleaſes, the extent is not to be limited; only this may be obſerved, that the more ſpacious it is, the more it will be to the owner's profit.

I do not know, ſays the ſame author, how thoſe who have wrote before me upon the ſubject of warrens, have given their opinion, that it ought to be ſurrounded with ditches full of water; they muſt either be acquainted with the nature of rabbits, or they muſt not: if they were, why, ſince they know moiſture to be injurious to theſe animals, ſhould they adviſe a thing that moſt contributes to it, by bringing water about by the means of ditches? Is not this acting againſt the courſe of nature? and if they were not ſenſible of the matter, they could have no reaſon to preſcribe what muſt naturally tend to the detriment of a warren; and therefore without troubling themſelves about what will become of the rabbits that are put into a warren, let them make one in ſuch a ſituation as is before deſcribed, and ſurrounded with good dry ditches, and it will be ſufficient.

If you have but few rabbits to ſtock your warren with, you muſt exerciſe the more patience, to wait for the pleaſure and profit you may expect from it; ſuch things there are in this world, time is required before men can make their advantages of them, therefore you muſt wait: a warren is of ſuch a nature, that it cannot too ſoon abound with ſubjects that are proper for it, ſo as to be in a condition to yield good profit to the owner: thoſe who deſire to have a warren ſoon, ought to furniſh themſelves with a certain number of does big with young; theſe animals, by their young ones, will multiply in time; but they muſt not for the firſt two years be hunted, and but a little the third; but thoſe who have moſt knowledge in this kind of management, take care to ſtock their warren, by the means of a great number of conies, and it is kept up the better when this is done.

WARREN. The next franchiſe in degree to a park, is the liberty and franchiſe of a free warren;

The beaſts and fowls whereof are ſaid to be four, *viz.* the hare, the coney, the pheaſant, and the partridge, and no other, (being ſuch as may be taken by long-winged hawks) that, for the moſt part, there are no officers in a warren, but the maſter of the game, or the keeper, and that there is no neceſſity of incloſing the ſame, as there is of a park.

And that becauſe a foreſt, in dignity, is both the higheſt, and the greateſt franchiſe; ſo it doth comprehend in it a chaſe, a park, and a free warren; for which reaſon the beaſts of the chaſe, and beaſts and fowls of the warren, are as much privileged within a foreſt, as the beaſts of the foreſt are, every foreſt being in itſelf a chaſe, though a chaſe be not a foreſt, but a part of it; and the like may be ſaid of a park or warren.

For which reaſon, the hunting, hurting, or killing any of the beaſts or fowls of chaſe, park, or warren, within the limits of the foreſt, is a treſpaſs of the foreſt, and to be puniſhed only by the laws of the foreſt, and not otherwiſe.

Although it is ſaid before, that the beaſts and fowls of the warren are the hare, the coney, the pheaſant, and the partridge, yet my Lord COKE accounteth all fowls *feræ naturæ*: There be both beaſts and fowls of the warren, ſaith he; beaſts, as hares, conies, and roes; fowls of two ſorts, *viz. terreſtres*, and *aquatiles*; (*i. e.* land fowl, and water fowl); that the *terreſtres* are of two ſorts, *ſylveſtres*, *i. e.* of the woods, and *campeſtres*, *i. e.* of the plain fields; the firſt are the pheaſant, woodcock, *&c.* the ſecond, partridge, quail, *&c.* the *aquatiles*, or water fowl, as mallard, hern, *&c.*

WART. An excreſcence, or ſuperfluity of ſpongy fleſh that riſes in the hinder paſterns of coach-horſes, almoſt as big as a walnut.

A wart ſuppurates and voids red ſtinking matter, and is not cured but for a time, for it returns again.

Wart, or ſpongy Excreſcence near the Eye of a Horſe.

This imperfection proceeds from congealed phlegm lodged there, which in time cauſes the eye to waſte, or to grow little, if it be not remedied.

For the cure: put three ounces of the powder of copperas into a crucible, on a charcoal fire, keeping the matter ſtirring from time to time; but take care to avoid the ſteams; continue a pretty ſmart heat till the matter grows ſomewhat reddiſh; then take it off the fire, and when it is cooled, break it, and beat the matter to a very fine powder; then incorporate four ounces of this powder with five ounces of album rhaſis, and make an ointment, to be applied cold to the warts; anoint them lightly every day, and they will fall off like kernels of nuts, without cauſing any ſwelling in the part.

But you muſt take care to anoint nothing but the warts, nor muſt you work or ride the horſe during the application of the ointment.

As ſoon as the warts are fallen off, which will be in a month's time, dreſs the ſores with the Counteſs's ointment, and it will compleat the cure in a month more; for the ſores are uſually very deep where the warts are very large.

WASPS may be deſtroyed by ſmoaking the hatch or hollow tree with any ſtinking combuſtible article, or by ſcalding them with boiling water. By putting cyder, verjuice, wine, or any ſour or ſweet liquor, in a ſhort-necked phial; you may alſo lay ſweet apples, the entrails of beaſts or fiſh, other fleſh, or treacle, in an earthen diſh, with a little water, or any liquid; and by theſe means you may deſtroy great numbers of them. Thruſting pieces of lighted brimſtone-rags into the neſts of waſps, and immediately covering their holes with earth, will deſtroy them. A copper coin of any kind held for a ſhort time to the part wounded by a waſp, is an excellent remedy.

WATERS FOR FISH. If you have a pond that is ſupplied by a white fat water, upon great rains you may

may put in at firſt three hundred carps *per* acre, if there be three or four acres of pond; but otherwiſe, you muſt not put in ſo many: and it will be proper to put in alſo forty or fifty tenches for a trial; becauſe this ſort of water is very proper for carp, but being laid dry ſome time may do well for tenches alſo.

Perches may be added to what number you pleaſe, as ſuppoſe ſix hundred, for they are great breeders; and being alſo fiſhes of prey, they devour their own ſpecies as much, if not more, than any other fiſh. And theſe are accounted one of the beſt ſorts of fiſh.

Take care how you put bream into theſe waters, for they grow up very ſlowly, though they will at length become very large, but in the mean time they breed ſo prodigiouſly, and have ſuch a ſlimy, naſty fry, as both robs and fouls the water, which renders it unfit for other fiſh; but when a water is ten or twelve acres in extent, and fed with ſome brook, winter and ſummer, they will do well; otherwiſe not to be made uſe of.

As for pike, they are dangerous gueſts in ſuch ponds, for if they are grown big, they will devour the beſt fiſh, and depopulate the water; but if you can get one hundred jacks once in two years, not exceeding nine inches, you may put them together with the carps, into great waters, ſo that your carps be not leſſer than nine or ten inches; but you muſt not let them continue there more than two years; after which time put them into their peculiar ponds, where being duly fed, they will grow to be very large and fine fiſh.

It is not expedient to ſtock great ſtanding waters with eels, for they are but of ſlow growth; and being alſo but of an indifferent ſize, they will be lean and dry; but ſuch moats into which the ſinks of houſes drain, are places in which they will thrive well.

Theſe directions relate particularly to the firſt ſtocking of new-made ponds; but after one, two, or three years, (for they muſt not continue longer full) when you come to re-ſtock, and ſo, on all occaſions, you may put three or four hundred carps, and eight hundred tench (if the water feeds them) into an acre, beſides perches.

You muſt likewiſe take notice, that if the fiſh with which you ſtock your ponds, be taken out of over-ſtocked ponds, which renders them lean and poor, you muſt at the ſame time double your ſtock, or elſe the too ſudden plenty of food at the firſt will ſurfeit them, and they will die of over-much blood, as has been found by experience.

WATER PROPER FOR HORSES. The preſervation of horſes depends conſiderably on the water they drink while they are travelling: that which is leaſt quick and penetrating is beſt; a river being preferable to a ſpring, and a fountain to a draw-well.

However, if a man is obliged to let his horſe drink ſuch penetrating water, it ought to be ſet in the ſun, or ſome of it warmed to correct the ſharpneſs of the reſt; or it may be a little amended by ſtirring it about with the hand, or throwing hay among it; but if the water be extreme quick and piercing, mingle warm water or wheat bran with it, and that will ſufficiently correct the fault.

WATERING OF HORSES. The due performance of this requires the obſervance of the following rules:

All the while you are upon a journey, let your horſe drink of the firſt good water you come to, after ſeven o'clock in the morning, if it be in ſummer-time, and after nine or ten in winter.

That is accounted good water, which is neither too quick and piercing, nor too muddy and ſtinking.

This is to be done, unleſs you would have him gallop a long time after drinking; for if ſo, you muſt forbear.

Though it is the cuſtom of *England* to run and gallop horſes after drinking, which we call watering-courſes, to bring them (as they ſay) into wind, yet ſays M. DE SOLLEYSEL, it is the moſt pernicious practice that can be imagined for horſes, by which many are rendered purſy.

While a horſe is drinking, draw up his head five or ſix times, making him move a little between every draught; and notwithſtanding he be warm, and ſweat very much, yet if he is not quite out of breath, and you have four or five miles to ride, he will be better after drinking a little, than if he had drank none at all: it is true, indeed, that if the horſe is very warm, you ſhould at coming out of the water, redouble your pace, to make him go at a gentle trot, to warm the water in his belly.

You ought to let him drink after this manner during the whole time of your journey; becauſe if when you happen to bait, he be hot, or ſweaty, you muſt not let him drink for a long time, becauſe it would endanger his life; and when his bridle is taken off, his exceſſive thirſt will hinder him from eating, ſo that he will not offer to touch his meat for an hour or two; which, perhaps, your occaſions will not allow you for a baiting time, and not to have any food will render him unfit for travel.

If you meet with any ford before you come to your inn, ride the horſe through it two or three times, but not up to his belly; this will cleanſe his legs; and the coldneſs of the water will bind up the humours, and prevent them from deſcending.

If your horſe has been very warm, and you have not had the conveniency of watering him upon the road, he will, when unbridled, eat but very little, therefore he ſhould have his oats given him waſhed in ale or beer, or only ſome of them, if you intend to feed him again after he has drank.

Some are of opinion, that horſes are often ſpoiled by giving them oats before their water; becauſe they ſay, the water makes the oats paſs too ſoon, and out of the ſtomach undigeſted. But M. DE SOLLEYSEL affirms, that though it be the common cuſtom not to do it till after, yet it is proper to feed with oats both before and after, eſpecially if the horſe be warm, and has been hard rid, for they will be a great deal the better for it, and in no danger of becoming ſick.

Green Water for many Sorrances.

Take an ounce and a half of *Roman* vitriol, and as much

much roche alum, an ounce of verdigris, and two ounces of copperas, reduce them all to a very fine powder, and put them into a two-quart bottle, into which pour a quart of the beſt and ſtrongeſt white wine vinegar; then having tied ſome pieces of lead or iron about the neck of it, that ſo it may ſink, put a hard roll of hay in the bottom of a kettle, that the bottom of the bottle may not touch the kettle; then cutting three notches in the ſides of the cork, leſt the bottle ſhould break, ſtop up the bottle, ſet it in the kettle upon the hay, ſo that it may ſtand upright; then put ſo much cold water into the kettle, that about two or three inches of the neck of the bottle may remain above the water; then hang the kettle over the fire, and make it boil for half an hour, or ſo long till the vinegar has diſſolved the powder; taking the bottle out now and then, and ſhaking the vinegar and powders together; and when you find that they are well mixed, take them off the fire, and keep it cloſe ſtopped with a cork, for uſe.

The Method of uſing it is as follows:

Take an earthen pan which will hold about twelve quarts, fill this with chamber-lye, that has been made by healthy, ſound, and young perſons; and the ſtaler the chamber-lye is, the better it will be for uſe. It ought to ſtand in the pan at leaſt three weeks before you uſe it.

It will be proper to have a pailful of it always ready: and when you have occaſion to uſe this medicine for a moderate grief, half a pint, or better, of the above deſcribed vinegar, with a quart of the ſtale chamber-lye, or if you would have it ſtronger, more of the vinegar: then they being mixed together cold, (or if in winter, hot) bathe the legs, heels, or parts of the horſe affected with it, twice a day.

As to the virtues of this water, it is the beſt remedy yet known in the world, either for the prevention or cure of many great and dangerous ſorrances, to which horſes are liable; as malenders, which it cures at once or twice dreſſing.

The mange, either dry or wet, rat-tails, ſcratches, gourded or ſwelled legs and heels; it alſo prevents and cures the greaſe fallen into the legs and heels.

And it will alſo cure the farcy, if to theſe two laſt-named diſeaſes you purge the horſe before, and once, twice, or three times during the time of cure.

It is a noble cleanſer and healer of all ſtubborn and foul ulcers and wounds in a horſe; preventing the breeding of worms, and all proud fleſh in wounds, as well as a repeller or driver away of any flux of humours from any part; alſo cliſts and cracks in the heels, pains, &c. preventing wind-galls, by its repellent and ſtrengthening quality.

The green water alone, without the chamber-lye, is the beſt of remedies for the cure of all fiſtulas, cankers, and galled backs, not diſpoſing ſuch ſorrances to rot, feſter, and grow worſe, as all greaſy and oily medicines do.

An excellent Eye Water.

Reduce lapis calaminaris to a very fine powder; alſo take powder of the beſt bole ammoniac, called *Venetian* bole, and the beſt white vitriol, of each an ounce: put them into a new earthen pipkin, which will hold four quarts, and boil them till the liquor is conſumed to three quarters of a pint; then let it ſettle, and pour off the clear from the feeces; to which clear liquor, add two drachms of ſaccharum ſaturni, commonly called ſugar of lead; ſalt of vitriol, two drachms; camphor diſſolved in ſpirit of wine, better than a quarter of an ounce; tincture of aloes, better than half, but not quite three quarters of an ounce; red roſe water, three quarters of a pint; prepared rufty, near, but not quite, half an ounce: mix all theſe together, and keep it in a bottle for uſe.

It is one of the beſt eye waters for horſes extant, for all diſeaſes of the eyes, as pin and web, pearls, clouds, blood-ſhotten, ſore and running eyes, ſalt, hot, and ſharp rheums, ulcers, fiſtulas, bruiſes, ſtripes, (and if it be mixed with a ſmall quantity of honey) alſo moon-blind, ſtrengthening the ſight to a miracle, by only ſyringing it into the eyes a ſyringe full two or three times a day.

As to its extraordinary virtues, a certain author gives the following inſtance:

A young unruly horſe being put into a cart, in order to learn him to draw, was ſo reſtive, that two or three men could ſcarce govern him, ſo that one of the men, violently whipping him over the face, he happened to receive a moſt dangerous ſtroke by a knotted whip-cord, in the eye, ſo that the cord had quite cut through the firſt coat of the eye, ſo deep, that the dent or wound would more than bury the whip-cord; and that wound was all along the middle of the ſight of the eye, which inflamed the eye and eye-lids to that degree, that the eye grew as big as one's fiſt; and all the beſt farriers judged it impoſſible to recover the ſight; but the eye-lid being bathed with a rag dipped in a little hot beer, in which a little butter had been boiled, and a handful of ſage leaves, as hot as the horſe could endure it, the ſwelling was thereby ſoon brought down; and then two or three ſyringes full of the aboveſaid water at a time being injected into the eye, and that two or three times a day, made a perfect cure of the eye in leſs than a week, and reſtored the horſe to his ſight as before.

Red Water.

This is a filthy humour iſſuing from any wound, ſore, or ulcer, in a horſe, which ſo long as it remains in, does ſo poiſon them, that they are not to be cured till it is brought out.

To effect this, take the root of the herb called Good King Henry, or All Good, and boil it in water, and give it him; or give him a good handful of muſtard-ſeed beaten ſmall, in white wine vingear, two or three times together, one after another; but you muſt be ſure to keep

keep his belly rubbed with a good long ſtick by two men, one at one end and the other at the other.

WATERS OR HUMOURS IN HORSES. Their hind legs are ſubject to certain white, ſharp, and corrupt humours or waters, which happen very rarely in the fore-legs, and are diſcovered by ſearching the paſterns, if a moiſtneſs be found beneath the hair, which is extremely ſtinking, and will grow all round the paſtern and paſtern joint, and ſometimes almoſt up to the very ham.

Theſe waters do frequently cauſe the paſterns to ſwell, keep the legs ſtiff, make the horſe lean, and ſeparate the fleſh from the coronet, near the heels.

They may be eaſily put a ſtop to in their beginning, but after they have been of ſome continuance, it is an error of thoſe who intend to diſperſe them; for although they may dry them up for a time, yet they will return and break out again.

As for the cure; if it be begun in winter time, they will occaſion a great deal of trouble; but in the ſummer time, the white honey charge will produce ſuch effects as are beyond expectation.

For Watery Eyes.

This infirmity proceeds either from rheumatic and moiſt humours, or from ſome ſtroke or blow, either with a whip, ſtick, or ſuch like, and the cure is,

Firſt bleed him in the eye-vein, then melt pitch, maſtich, and roſin, of each equal quantities together, and ſpread it with a ſtick over his temples; then lay ſome wool over it, ſo as to lie flat to his head.

Then having diſſolved ſome alum in white-wine, waſh his eyes with it; or blow ſome powder of tutty into them; or you may mix a little tutty with fine honey, and touch the corner of the eye with it, and you will find the plaiſter will looſen and fall off, as the humour decreaſes.

WATERY SORES IN HORSES. There is a certain ſtinking or fretting matter, which iſſues out of the pores, and deadens the ſkin of the paſtern, fetlock, and ſometimes of the whole leg of a horſe, and is ſo corroſive, that it looſens the hoof from the coronet at the heel, appearing on the ſkin in form of a very white and malignant matter, which ſhews the greatneſs of the corruption.

The breaking out of this matter is always uſhered in by a ſwelling, and accompanied with pain, and at laſt acquiring a venomous quality, it is ſucceeded by warts, clefts, and nodes, which in proceſs of time, over-run the whole part, and render the cure very difficult.

It commonly appears at firſt on the ſide of the paſtern, and afterwards riſes up to the middle of the leg, peeling off ſome part of the hair.

As for the cure; as ſoon as you perceive a horſe to be ſeized with this diſtemper, let him blood ſparingly, two pounds of blood will be enough; then give him every morning for eight days together, a decoction of guaiacum, or of box-wood, and afterwards purge him, obſerving the ſame method as is preſcribed for the FARCIN, *which ſee.*

In the mean time you muſt ſhave away the hair, and if the leg be not gourded, rub the ſore places very hard with a wiſp, in order to apply the following ointment for drawing up water ſores:

Take a pound of black ſoap, an ordinary glaſs full of ſpirit of wine, two ounces of common ſalt beaten ſmall, and three ounces of burnt alum, with a ſufficient quantity of meal: make an ointment of theſe, to be laid on the part without any covering or bandage. The next day waſh the place clean with new-made urine, and apply the ointment ſeveral times, waſhing it as before.

WATER-SPANIEL; *how to train and order him for the Game in Fowling.*

The water-dog is of ſuch general uſe, and ſo common amongſt us, that there needs no great deſcription of him; but there are great differences amongſt them, as well in proportion, as otherwiſe.

As to colour, the curious will make a difference, as the black to be the beſt and hardieſt; the ſpotted or pied, quickeſt of ſcent, and the liver-hued quickeſt in ſwimming: but, in truth, colour is not material, for without doubt there are good and bad of all colours, and that by experience is found: but his breeding, training up, and coming of a good kind, are the chief things; yet it muſt be confeſſed, that as to handſomeneſs, the colour is to be regarded, ſo is the proportion as to the ſhape; and then his head ſhould be round, with curled hair, his ears broad and hanging, his eyes full and lively, his noſe ſhort, his lips like unto an hound's, his neck thick and ſhort, his ſhoulders broad, his legs ſtraight, his chine ſquare, his ribs with a compaſs, his buttocks round, his thighs brawny, his belly gaunt, his paſterns ſtrong and dew-clawed, and his fore-feet long and round, with his hair in general long and curled, not looſe and ſhagged; for the firſt ſheweth hardineſs and ſtrength to endure the water, and the other much tenderneſs and weakneſs.

Now for the training and bringing him up you cannot begin too early, I mean to teach him obedience, when he can but lap, for that is the principal thing to be learned; for being made to obey, he is then ready to do your commands; therefore ſo ſoon as he can lap, teach him to couch and lie cloſe, not daring to ſtir from that poſture without your commands; and the better to effect this, always cheriſh him when he does your will, and correct him when he diſobeys: and be ſure to obſerve, that in the firſt teaching him you never let him eat any thing, but when he does ſomething to deſerve it, that he may therefore know that food is a thing that cometh not by chance, or by a liberal hand, but only for a reward for well-doing; and this will make him not only willing to learn, but apt to remember what he is taught without blows, and to that end, have no more teachers than one, for variety breeds confuſion, as teaching divers ways, ſo that he can learn no way well.

Another thing is, you muſt be very conſtant to the words of direction by which you teach him, chuſing ſuch as are moſt pertinent to that purpoſe, and thoſe words

words that you firſt uſe, do not alter, for dogs take notice of the ſound, not of the *Engliſh*, ſo that the leaſt alteration puts them to a ſtand: for example, if you teach him to couch at the word *down*, this will be a known command unto him; and I am of opinion, that to uſe more words than what is neceſſary for one and the ſame thing, is to overload his memory, and cauſe forgetfulneſs in him.

And this method ſhould be obſerved, as to the ſetting-dog.

You muſt teach him alſo to know the word of correction, and reprehenſion, for no leſſon can be taught without a fault; and no fault ſhould eſcape without reprehenſion, or at leaſt of chiding, and in this be as conſtant to a word; as, *Go to*, *ſirrah*, *raſcal*, or the like; which at firſt ſhould be uſed with a laſh or jerk, to make him know, that it is a word of wrath or anger; neither muſt ſuch words proceed from you lovingly or gently, but with paſſion and roughneſs of voice, together with fierceneſs of looks, that the whelp may tremble when he hears you ſpeak thus. You muſt have certain words of cheriſhing when he hath done well, that he may be thereby encouraged, as, *That's a good boy*, *well done*, or the like, uſing therewith chearfulneſs of ſpeech, nor without actions of favour, as ſpitting in his mouth, clapping him on the back, and the like; you muſt alſo uſe ſome words of advice, that when he is at his ſport, he may the better perform the ſame, and they may ſerve to ſpur or put him forward with more chearfulneſs of ſpirit, as, *Take heed*, *hem*, or the like.

When your whelp is brought to underſtand theſe ſeveral words, viz. of inſtruction, correction, cheriſhing, and advice, and that he will couch and lie down at your feet, how, when, and as long as you pleaſe, and that with a word, or look only, then teach him to lead in a line or collar, and to follow at your heels, without coming too cloſe or hanging back; the meaning of this is, to teach him to be more familiar and obedient unto you.

Having brought him to perfect obedience, to follow you in a line, the next thing muſt be, to make him follow you in like manner looſe, without a line, and always to be at your heels, and to lie down by you, without your leave to the contrary: this is as neceſſary a leſſon as can be taught him, for he muſt be ſo but upon ſpecial occaſions, as to raiſe up fowl from their haunts, and find out, and bring what you have ſhot or killed, unto you.

The next leſſon to learn him is, to fetch and carry any thing that you ſhall command him; and this you may begin to teach him by the way of ſport, as by taking your glove, and ſhaking his head, making him to catch at it, and to play with it; and ſometimes let him hold it in his mouth, and ſtrive to pull it from you; then caſt it a little way from you, and let him muzzle it on the ground; then take it from him gently, giving him cheriſhing, as, *That's a good boy*, *well done*, or the like.

After you have ſpent ſome time in this, and that you find him to take it from the ground, and to hold it in his mouth, as it were, from you, then begin to caſt it further and further, giving your command, ſaying, *Fetch or bring it*, *ſirrah*; and if he brings it, then cheriſh and reward him with meat, or a cruſt of bread, and let him have no food, but what he deſerves by doing his leſſon, and by your continual practice he will fetch your glove, or any thing elſe you throw out for him.

If at any time he offers to run away with your glove, or to toſs it up and down wantonly, not bringing it you orderly, then firſt give him your word of inſtruction:

And if that will not do, your word of correction; and if neither avail, then proceed to blows, and give him nothing to eat as a reward, until he does as you command him.

When by this means you have made him perfect, and that he will fetch a glove readily wherever you throw it, bringing it to you, although in company, and all call him to come to them; you muſt then make much of him, and reward him very well: and having trained him to fetch your glove, then proceed to teach him to fetch whatſoever you throw from you, as balls, ſticks, ſtones, money, or any thing that is portable.

As alſo teach him to carry live or dead fowl, and with a tender mouth, that when you have occaſion to uſe him for the ſport, he may bring them to you without tearing, or ſo much as bruiſing a feather.

As you walk with him in the fields, drop ſomething behind you unknown to him; and being gone a little way ſend him back to ſeek it, by ſaying, *Back*, *ſirrah*, *I have loſt*; and if at firſt he ſtand amazed, urge him ſtill, and ceaſe not by pointing to him the way you would have him go, until by ſeeking out he finds that which you dropped; which make him take up, by ſaying, *That's it*, and to bring it after you; then drop it again, going twice as far as formerly, cauſing him to go back to ſeek it, not leaving him till you have made him find it, and bring it to you, for which cheriſh and reward him; and where he fails, there chaſtiſe or chide him, ſometimes with angry words, other times with blows, and ſometimes keep him faſting, according to his offence; and thus do until he will hunt the way back which you went, were it above a mile.

But if your dog happen to bring you a wrong thing, you muſt receive it from him, and cheriſh him; but ſend him back preſently again, ſaying, *Away again*, or *I have loſt more*, and be not ſatisfied until he hath brought you the right thing; and if he return without any thing, then be ſure both to chide and beat him for his ſloth and negligence.

When he will thus fetch, carry, and find out things thus loſt, then train him to hunting, beginning firſt with tame fowl, which by your help (when they dive or otherwiſe) you may with little labour make him take, which will hearten and encourage him to the ſport.

After this, make him uſe all his cunning without your aſſiſtance, whether he gets or loſes the game, and according to his deſert, reward or correct him: by this practice he will become maſter of his game, and be ſure always

always that he bring his game (when taken) to the ſhore unto you without hurting it.

Your next buſineſs ſhould be, to train him unto your fowling-piece, cauſing him to follow, as it were, ſtep by ſtep behind you, and under the covert of your ſhadow, until you have ſhot, or elſe to couch, or lie cloſe, where you appoint him, by ſaying, *lie cloſe*, until you have ſhot; and then upon the leaſt notice, or beckoning, ſpeedily to come and do what you command.

Some dogs are ſo expert, as to have their eye upon the game, and upon a gun's going off immediately run to fetch it; but it is adjudged not ſo good, for the piece ſhould not be a warning to him, but your command; and if you give him this liberty at your ſhooting, when you come among your nets or lime-twigs, and as ſoon as he ſeeth the fowl entangled and flutter their wings, he will preſently ruſh in amongſt them, and will occaſion the ſpoiling your lime-rod, and the tearing or entangling your nets.

The ſpaniel is of great uſe in moulting time, that is, when the wild-fowl caſt their feathers, and cannot fly, but lie lurking about in ſecret places; which ſeaſon is between ſummer and autumn: at which time take your dog into ſuch places where they reſort, cauſing him to hunt about; and when he finds them, they are eaſily taken, becauſe they cannot fly.

In fenny countries, where fowl do much reſort, great quantities may be ſo taken, driving them into places where you muſt have nets ready fixed, as in narrow creeks, or the like.

Theſe fowl, if taken and kept tame, and fed with beaſts livers, whey, curds, barley, paſte, ſcalded bran, and the like, are excellent food, far ſurpaſſing thoſe abſolutely wild, both for plumpneſs, fatneſs of body, and alſo for ſweetneſs of taſte.

WATTLES; the gills of a cock, or the naked red fleſh that hangs under a turkey's neck.

WEAK; eaſy branch, *See* BANQUET and BANQUET-LINE.

WEANING *of a Colt.*

When you have a mind to wean a foal, take it from its dam the over night, and put it in ſome empty place where it may reſt, and out of the hearing of the mare.

The next morning give the foal faſting, a ſprig or two of ſavin, rolled in butter, and keep him faſting for two hours after; then give him a little meat, as graſs, hay, or chaff, with ſome clean water; manage him thus for three days one after another, by which time he will have forgot the dam; and if you intend to make a gelding of him, geld him; and after the ſwelling is aſſuaged, put him into a paſture, with other colt-foals by themſelves, and the fillies into a paſture by themſelves.

Let theſe paſtures be ſpacious pieces of ground, where they may run till they are fit for the ſaddle.

WEAR } a bank or great dam in a river, contrived for
WARE } the taking of fiſh, or for conveying the ſtream to a mill.

To deſtroy WEASELS.

Take ſal ammoniac, pound it, and with wheat-flour and honey make it into a paſte, with the white of an egg; lay it in pellets where they come, and it will kill them.

WHEEZING, OR BLOWING IN HORSES, is quite different from purſiveneſs: for this wheezing does not proceed from any defect in the lungs, but from the narrowneſs of the paſſages between the bones and griſtles of the noſe.

And farther, theſe horſes do not want wind: for, notwithſtanding they blow ſo exceſſively when exerciſed, yet their flanks will be but little moved, and in their natural condition.

2. There are ſome horſes that are thick winded, that is, have their breathing a little more free than the former; but neither the one nor the other are agreeable, or for any great ſervice.

Yet a perſon may be liable to be miſtaken in this caſe, for when a horſe has been kept a long time in the ſtable without exerciſe, he will, at the firſt riding, be out of breath, although he be neither a blower, nor thick winded.

3. There are ſome wheezers or blowers, that rattle and make a noiſe through the noſe; but this impediment goes and comes, and is only occaſioned by abundance of phlegmatic ſtuff; for their flanks will not redouble, neither will they have a cough with it, and therefore they cannot be purſy.

WHELPS; thoſe who have fair hounds, ſhould chuſe fair bitches, and ſuch as are ſtrong and well proportioned in every part, with large ribs and flanks.

The beſt ſeaſon for coupling hounds, is in *January*, *February*, and *March*, for then they will litter in a good time of the year (that is, in the ſpring) ſo that they will be fit to enter in due courſe without loſs of time, or of the ſeaſon; for if bitches litter in the winter, it is very troubleſome to bring up their whelps, and it will be difficult to keep them alive; cold being very injurious to all young creatures.

The dogs that line the bitches muſt not be above five years old, for if they are older (it is the opinion of many) the whelps which they get will prove dull and heavy.

You ought alſo to be ſure to get good dogs for the bitches at their firſt growing proud, for ſome perſons have made this obſervation, that if it be a maſtiff, grey-hound, or hound, that firſt lines a bitch, in all the litters that ſhe will have afterwards, one of her whelps will reſemble the dog that firſt lined her.

And although the firſt litter of whelps is not accounted ſo good as the ſecond or third, becauſe they are ſuppoſed to be both weaker and ſmaller, yet you ſhould not fail to have her lined at firſt with a good fair hound.

When a bitch has grown proud, it is not good to cool her in the water; for that congeals the blood within her veins and arteries, and cauſes the belly-gripes, mangineſs, and other diſeaſes.

When a bitch begins to grow pretty big with whelps,

ſuffer her not to hunt, or uſe any violent exerciſe, for that may cauſe her to caſt her whelps; take care to feed her well, and provide her a clean and private place to litter in, and keep them there for a few days, that they may be familiarized with it.

When your bitch has littered, chuſe thoſe you wiſh to keep, drowning the reſt; there will indeed be ſome difficulty in chuſing the beſt; for according to the opinion of ſome, thoſe will be the ſwifteſt and beſt, that are the lighteſt while they ſuck; but will not be the ſtrongeſt: others tell us, that that whelp that ſees the laſt is beſt; and others adviſe to remove the whelps, and lay them in ſeveral places, watching the bitch, and that whelp which ſhe carries firſt to the kennel, will prove the beſt.

Let the whelps have good freſh ſtraw to lie on, and let it be often changed; do not let them be expoſed to ſun-ſhine or rain; and it will be of advantage to them to anoint their ſkins once or twice a week with nut-oil, mixed with ſaffron pounded, which will keep them not only from being annoyed with flies, but will kill worms of all kinds.

When the whelps are fifteen days old, let them be wormed, and a week after, cut or twiſt off one joint of their ſterns; when they can ſee, give them milk to lap; and when they are two months old wean them, keeping them from their dams; they then ought to be well fed, but not too high kept; and now and then put ſome cummin-ſeeds in their bread, to expel or keep wind out of their bellies.

Some indeed adviſe to let the whelps ſuck three months, and afterwards to weau them, and then to put them to be kept in villages, till they are ten months old: giving a ſtrict charge to thoſe who keep them not to ſuffer them to eat carrion, and not to permit them to frequent warrens, which will be injurious to them.

Let them be fed with bread made of wheat, for rye-bread will pals too ſoon through them, and is ſo light that they will be narrow-backed; whereas hounds ought to have broad ones.

They having been kept in this manner till ten months old, take them up and put them into the fields amongſt others, that they may be inured to live after the ſame manner; about which time begin by degrees to couple them with others, that they may learn to go a hunting.

Five or ſix days practice of this may do, and in order to make them tractable, in caſe they ſhould go aſtray or open unſeaſonably, let them now and then feel the ſmart of your whip.

WHINE. An hunting term, uſed for the cry of an otter.

WHIPPING IN ANGLING. The faſtening a line to the hook or to the rod; it is alſo uſed for the caſting of the hook, and drawing it gently on the water.

WHITE FACE OR BLAZE; is a white mark upon horſes deſcending from the forehead, almoſt to the noſe. *See* CHANFRIN.

WHITE FOOT. A white mark that happens in the feet of a great many horſes, both before and behind, from the fetlock to the coffin.

The horſes thus marked, are either tramelled, croſs-tramelled, or white of all four.

Some horſemen place an unlucky fatality in thoſe white of the far foot behind. *See* CHAUSSE-TROP, HAUT, and TRAMMELLED.

WHITE FOOTED (in Farriery) a quality of which it is ſaid there are four good marks belonging thereto, and ſeven bad ones.

The firſt good mark is when the horſe has only his fore feet, and the ſecond is when he has his near hind-foot white.

The far-hind foot white is accounted a bad mark.

The two fore-feet white, is accounted a bad mark, but not very common.

The two hind-feet white is a good mark, eſpecially if he has a good ſtar or blaze in his forehead.

The two fore-feet, and one hind-foot white, is ſomewhat better than the two fore-feet alone.

Four white feet are an indication of good nature: but ſuch horſes for the moſt part are not very ſtrong; and their fore-feet will incline to be brittle, by reaſon of the whiteneſs of the horn.

Two feet on a ſide white is a bad mark, and ſo likewiſe when a horſe is croſs white-footed; though this by ſome is accounted a good mark, to have the far fore-foot and near hind-foot white, eſpecially if he have a ſtar with it.

ERMINED WHITE-FEET. Are ſuch as are freckled with little black ſpots round the coronets, an excellent mark.

Laſtly, the higher the white aſcends upon a horſe's legs, he is ſo much the worſe.

But after all, the judgment drawn from marks and colours, is according to men's fancies; there being good and bad of all marks, as well as of all colours.

WHITE-HOUND, thoſe hounds which are all of one colour are accounted the beſt hounds: in like manner, thoſe which are ſpotted with red; but thoſe that are ſpotted with a dun colour are eſteemed of little value, being faint hearted, and cannot endure much labour.

But if they happen to be whelped coal black, which ſeldom happens, they commonly prove incomparable hounds.

But if white hounds are ſpotted with black, experience tells us they are never the beſt hare hunters. White and black and white and grey, ſtreaked with white, are alſo the moſt beautiful.

A WILD BOAR, is called the firſt year a pig of the ſounder, the ſecond year a hog, the third a hog-ſteer, the fourth a boar; at which age, if not before, he leaves the ſounder, and then he is called a ſingler, or ſangler.

The wild boar was formerly a native of *Britain*, as appears from the laws of HOEL DDA, LEGES WALLICÆ, 41. WILLIAM the Conqueror puniſhed, with the loſs of their eyes, any that were convicted of killing him: CHARLES I. turned out wild boars in the New Foreſt, but they were deſtroyed in the civil wars.

To

To take Wild-fowl with Line Springs, &c.

Having found out any place where wild-fowl reſort, either great or ſmall, make uſe of this device:

Procure a bundle of ſticks about a foot in length, ſharpen them at one end, and let them be ſuch as are forked at the other; ſtick theſe into the ground ſlightly, only ſo as to bear up the lines or cords hereafter mentioned, placing theſe ſticks in ſtraight lines, and at equal diſtances, all over the whole place where they reſort.

Provide a ſufficient quantity of packthread or ſmall cord, and daub it all over with ſtrong bird-lime, if you deſign it for ſtrong fowl, or to be uſed in the water; or otherwiſe ordinary bird-lime will ſerve well enough.

Set the ſticks not above ſix feet diſtant one from the other, and let the ſticks be of ſuch proportions as will be able to bear up the lines, which are to be laid all along over the forks, faſtening the ends of the lines to the laſt ſticks with ſlipping knots, that when any fowl comes to touch on any part of the line, the whole line may give way to enſnare it, ſo that the more it ſtrives to get away, the faſter it will be held.

If you ſet againſt the morning, fix the rods or ſticks over night; and lay the lines on at leaſt an hour before day; for if they are not laid ſo ſoon, it will be great odds but the fowls will be there before you.

But if you ſet for the evening, you muſt ſet up ſticks and lines before ſun ſet, leſt the fowls reſorting thither, and finding you there, be frighted and avoid the place; and it will alſo be proper to ſtrew baits for them to entice them thither.

If you place theſe rods in the water, then you muſt ſet them ſo, that the lines be not above five or ſix inches above the water, that the fowl may touch on them as they ſwim to and fro, and you may then fix one end of the line, and only let the other end be with a running knot, and ſo you may be aſſured of finding what are caught.

If you ſet over any water, the ſticks muſt be either longer or ſhorter, according to the depth of the water.

This device will not be ſo good in light nights; but in thick and dark fogs it is very good, for there is no need to watch them, but only to go to the place every morning and evening, and when you have made trial of one place you may remove to another haunt, and ſtill preſerve and ſupply the ſticks, lines, and lime, as you ſee occaſion.

If you ſet for water-fowls, it will not be amiſs that ſome of the lines be about two feet high above the water, that they may enſnare the fowls as they make their flights, before they deſcend into the water, it having been obſerved that they are uſed to fly at about that diſtance at ſuch times.

WILD-GOAT. An animal as big as a hart, though not ſo long-legged, but fleſhy: they have wreaths and wrinkles on their horns, by which you may know what age they are, for according to the number of them, ſo many years old they are.

Theſe wreaths this animal moves but not his beam, which if it be an old goat, it may be as big as a man's leg: they have alſo a large long beard; are of a browniſh grey colour, very ſhaggy, having a black liſt down the ridge of their back, and their track is larger than the ſlot of a hart.

They fawn in *May* as a hind or doe does; they bring forth but one, which they ſuckle and bring up in the ſame manner as the tame goat does her kid; but about fawning time, the females ſeparate from the males till rutting-time; in the mean while they will run at man or beaſt, and fight as harts do one againſt another.

They go to rut about *Allhallow-tide*, and continue therein a month or five weeks; when that ſeaſon is over they deſcend from the mountains and rocks, which are their conſtant abode for their ſummer ſeaſon, and herd themſelves not only to avoid the ſnow, but becauſe they can find no food any longer; yet they do not come very low, but keep at the foot of the hills till about *Eaſter*; when they return again, every one chuſing ſome ſtrong hold in the rocks, as the harts do in the thickets.

The male when he goes to rut, has his throat and neck much bigger than uſual; he has a very ſtrong back, and what is moſt ſtrange, though he ſhould fall from on high ten poles length, he will receive no harm, but will walk as ſecurely on the ſharp tops of rocks, as an hare on the highway.

In the laſt place, this beaſt feeds like a deer, only beſides ivy he will eat moſs, and the like ſtuff; in the ſpring they make their fewmets round, and afterwards broad and flat, as the hart does when he comes to feed well.

WILD-GOAT HUNTING. The chief ſeaſon for this ſport is at *Allhallow-tide*; but before you begin to hunt, you ſhould take great notice of the advantage of the coaſts, the rocks and places where the goats lie; then ſet nets and toils towards the rivers and bottoms, for it cannot be expected that the hounds ſhould follow a goat down every ſteep place on the mountains.

It will alſo be neceſſary for ſome body to ſtand on the rock and throw down ſtones as occaſion requires; and where the goat goes down the ſmall brooks or waters in the bottom, there you ſhould place your re-lays; but let them never ſtay till the hounds come to it that are caſt off; this is the beſt help, for a man can follow neither on foot nor on horſeback.

WILD-GOOSE CHASE. A method of racing that takes its name from the manner of the flight of wild-geeſe, which is generally one after another; ſo that two horſes, after the running of twelve ſcore yards, had liberty, which horſe ſoever could get the leading, to ride what ground he pleaſed, the hindmoſt horſe being bound to follow him, within a certain diſtance agreed on by articles, or elſe to be whipt up by the triers or judges who rode by; and which ever horſe could diſtance the other, won the match.

But this chaſe was found by experience ſo inhuman, and ſo deſtructive to good horſes, eſpecially when two good horſes were matched; for neither being able to

diſtance the other, till both ready to ſink under their riders through weakneſs, oftentimes the match was obliged to be drawn, and left undecided, though both the horſes were quite ſpoiled.

This brought up the cuſtom of train-ſcents, which afterwards was changed to three heats and a ſtraight courſe; and that the lovers of horſes might be encouraged to keep good ones, places have been erected in many grounds in *England*.

WIND. A horſe that carries in the wind, is one that toſſes his noſe as high as his ears, and does not carry handſomely.

The difference between carrying in the wind and beating upon the hand, is that a horſe who beats upon the hand, ſhakes his head and reſiſts the bridle; but he who carries in the wind, puts up his head without ſhaking, and ſometimes bears upon the hand.

The oppoſite to carrying in the wind, is arming and carrying low; and even between theſe two, there is a difference in wind. *See* BREATH.

WIND BROKEN. Different authors have been of various opinions, with regard to its cauſes, and why ſome horſes ſhould be more ſubject to it than others; but among all the opinions hitherto delivered, that of the ingenious Mr. GIBSON ſeems the beſt founded. He thinks that its ſource is frequently owing to injudicious or haſty feeding of young horſes for ſale, by which means the growth of the lungs, and all the contents within the cheſt, are ſo increaſed, and, in a few years, ſo preternaturally enlarged, that the cavity is not capacious enough for them to expand themſelves, and perform their proper functions. Nor is this opinion founded on bare conjecture; horſes that have died broken-winded have been opened, and the lungs, and other parts, found too large for the cheſt.

But though haſty feeding is often the cauſe of this diſorder, yet it is not always ſo. A narrow cheſt may naturally produce it, and it has been obſerved, that horſes riſing eight years old, are remarkably ſubject to this diſorder.

The reaſon why this diſorder becomes more apparent at the abovementioned age, than at any other, may be becauſe a horſe then arrives at his full ſtrength and maturity: at ſix he commonly finiſhes his growth in height, when he lets down his belly and ſpreads, and all his parts are grown to their full extent; ſo that the preſſure on the lungs and midriff is now increaſed.

Diſſections of horſes that have died broken-winded, have ſufficiently proved what we have obſerved above, namely, that not only their lungs, together with the heart and its bag, were preternaturally large, but alſo the membrane, which divides the cheſt, and the diaphragm or midriff was remarkably thin. In ſome the diſproportion has been found ſo large, that the heart and lungs have been almoſt twice their natural ſize, perfectly ſound, and without any ulceration whatever, or the leaſt defect in the wind-pipe, and its glands.

From theſe obſervations it abundantly appears, that the enormous ſize of the lungs, and the great ſpace they occupy, by hindering the free action of the midriff, is the principal cauſe of this diſorder; and as the lungs themſelves are found much more fleſhy than uſual, they muſt conſequently have loſt a great part of their ſpring and tone.

As therefore the cauſe of this diſtemper proceeds from the largeneſs of the lungs, we may conclude that is one of thoſe diſeaſes to which a horſe is ſubject, that cannot be cured by art, and that the boaſtings of thoſe who pretend to cure it, are built on a ſandy foundation, and will prove in the end vain and frivolous. They may, indeed, mitigate the ſymptoms, and give ſome relief to the creature, but an abſolute cure is not in the power of any human being. All therefore that we ſhall pretend to do, is, to lay down ſome rules, which will have a great tendency to prevent this diſorder, if purſued in time. But if they ſhould not be ſufficient, we ſhall give the form of ſome remedies that will mitigate its force, and render the horſe capable of performing good ſervice, notwithſtanding his misfortune.

The firſt ſymptom preceding a broken wind, is an obſtinate dry cough, attended with neither ſickneſs nor loſs of appetite; but on the contrary, a diſpoſition to foul feeding, eating his litter, and drinking large quantities of water.

When a horſe is troubled with this obſtinate dry cough, and eats his litter, *&c.* it will be neceſſary to bleed him, and give him the mercurial phyſic, already preſcribed, and repeat it two or three times. After which give the following balls for ſome time, which by experience have been found of the greateſt efficacy in removing obſtinate coughs:

Take of arum moſaicum finely powdered, eight ounces; of myrrh and elecampane, pounded, each four ounces; of anniſeeds and bay-berries, each an ounce; of ſaffron, half an ounce: make the whole into balls with oxymel of ſquills.

Or, as the arum moſaicum is not eaſily procured, give the following:

Take of gum ammoniacum, galbanum, and aſſafœtida, of each two ounces; of ſquills, four ounces; of cinnabar of antimony, ſix ounces; of ſaffron, half an ounce: make the whole into balls with honey.

One of theſe balls, about the ſize of a pullet's egg, ſhould be given every morning.

But it is not enough to give proper medicine: the diet of the horſe muſt be carefully attended to, if we would hope for ſucceſs; in order to this, the horſe ſhould eat very ſparingly of hay, which as well as their corn, may be wetted with chamber-lye, or fair water, and this will make them leſs craving after water, which ſhould by all means be prevented.

The chamber-lye is beſt for this purpoſe, becauſe the volatile ſalts it contains, will be a means of removing their thirſt. For the ſame reaſon garlick is found very efficacious in this diſorder; two or three cloves being given in each feed; or three ounces of garlick bruiſed and boiled in a quart of milk and water, and given every other morning for a fortnight, have been found very ſerviceable; and therefore ſo eaſy a remedy ſhould never be neglected; for by warming and ſtimulating the ſolids, and at the ſame time diſſolving the tenacious

tenacious juices, which choak up the veſſels of the lungs, it greatly relieves theſe complaints.

Moderate exerciſe ſhould never be omitted in broken-winded horſes, and though for the firſt ſummer after they have not been able to endure much labour, yet many have been found leſs oppreſſed the ſecond, and ſome ſcarce perceptibly affected the third; and even able to perform a long journey, or endure great fatigue. And were it poſſible to keep a horſe conſtantly in the field, and taken up only when uſed, he would be able to do good ſervice for many years.

But it may not be improper to obſerve, that thoſe who hope to cure a broken-winded horſe, or even one that is troubled with an obſtinate cough, by putting him to graſs, will find themſelves wretchedly miſtaken; for on his being taken into the ſtable, and fed with dry meat, he will be much worſe than before, for want of that open and moiſt food he had been accuſtomed to; and ſome which were only troubled with a dry cough when they were put to graſs, have returned broken-winded. It ſhould therefore always be remembered, that if you have not the conveniency of keeping your horſe for a conſtancy abroad, not to put him to graſs at all, as inſtead of curing, it will tend to augment the diſorder.

In ſhort, the grand ſecret of managing horſes of this kind, conſiſts in having a particular regard to their diet and exerciſe: a moderate quantity only of hay, corn, or water, ſhould be given at one time, and the former conſtantly moiſtened, to prevent their requiring too great a quantity of the latter: and giving them moderate exerciſe, but never any that is violent. By this method, and giving the following ball once a fortnight or three weeks, the horſe will be able to do good ſervice for many years, provided his labour be never too violent.

Take of ſuccotrine aloes, ſix drachms; of myrrh, galbanum and ammoniacum, of each two drachms; of bay-berries, half an ounce; make the whole into a ball with a ſpoonful of oil of amber, and a ſufficient quantity of the ſyrup of buckthorn.

This ball operates ſo gently that there is no need for confinement, except on the very day it is taken, when the horſe muſt have warm meat and warm water.

Or, take mullet-leaves, dry them and reduce them to a fine powder, mix them with common honey, make them up into balls, about the ſize of a pigeon's egg; give the horſe three at a time for fourteen or fifteen days together, and let him not drink any cold water during the time; let his exerciſe be moderate, his hay ſprinkled with water, and wet his oats with good ale or beer.

Or, peel twenty cloves of garlic, and bruiſe them in a wooden bowl, and roll the garlic in a quarter of a pound of butter, into four or five balls, about the ſize of a walnut, and give them the horſe.

This medicine may be given to any horſe of what ſtate ſoever, if he be affected either with a cold, or poſe in the head, for it purges the head and lungs.

This is to be given in a morning faſting, and he muſt be rid moderately for half an hour after; and if you pleaſe you may repeat this doſe for three mornings ſucceſſively.

WIND-GALLS IN HORSES. A diſeaſe, being bladders full of a corrupt jelly, which being let out, is thick, and of the colour of the yolk of an egg; they are ſometimes large, and ſometimes ſmall, and grow on each ſide of the fetlock-joints upon all four legs, and are often ſo painful, eſpecially in the ſummer ſeaſon, when the weather is hot, and the ways hard, that they cauſe him not only to halt, but even to fall.

They are found on various parts of the body, where there are membranous or tendinous expanſions, but generally their ſeat is about the back-ſinews, on the fore and hind legs, and moſt frequently on the latter.

When ſeated near the joints, or upon the tendons, their cauſe is, for the moſt part, a bruiſe or ſtrain, and their contents are both air and a ſort of a jelly: but when the interſtices between the muſcles are the ſeat, their contents are only air.

Beſide their unſightlineſs, in hot weather, and on hard roads, they make the horſe go lame: yet weakly young horſes, as they get ſtrength, generally out-grow them, though nothing hath been applied to deſtroy them.

They are cauſed, for the moſt part, by extreme labour and heat, whereby the humours, being diſſolved, flow to the hollow places about the nether joints, and there ſettle, which is the cauſe of this malady.

Thoſe that contain only air, may be opened and treated as a common wound: thoſe that contain a quantity of jelly, and have their ſeat on a tendon, may be tried with aſtringent application and bandage, ſuch as a decoction of oak-bark, with alum in verjuice, with which the wind-gall may be frequently waſhed, and a flannel rag, dipped in it, may be ſecured on the part with a proper bandage; but the beſt method is the application of bliſters to the part. Apply a little of the following ointment every other day for a week, and a diſcharge will be brought on, but cannot eaſily be continued: when it ceaſes, the horſe may return to his labour a little while, after which repeat this application once in a month, until the cure is effected, which will ſometimes be a year or more. Thus you prevent ſcars, which are a neceſſary conſequence, and indeed, ſometimes a fulneſs or a ſtiffneſs in the joint, when firing is uſed.

Bliſtering Ointment.

Take of cantharides, two drachms: euphorbium, one drachm; Flanders-oil of bays, one ounce; mix them well together.

The uſual method is, to open them the length of a bean, and ſo preſs out the jelly; and then to apply the white of an egg, and oil of bay, with hards plaiſter-wiſe thereto; or, after the jelly is out, wrap a wet woollen cloth about it, and with a taylor's hot preſſing-iron rub upon the cloth till all the moiſture is dried up; then daub it all over with pitch, maſtich, and roſin boiled together, and lay hards over all, but you muſt firſt ſhave away the hair, and open the ſorrance.

At the firſt appearance of a wind-gall the tumour ſhould be bathed twice a-day with vinegar or verjuice, and a proper bandage applied to the part. Or you may foment the ſwelling with a decoction of oak bark, the rind of pomegranate and alum boiled in verjuice; and after the fomentation apply a proper bandage.

Sometimes neither of the above methods will anſwer the intention, and conſequently there will be a neceſſity to have recourſe to others, and accordingly ſeveral have been given by different authors; but the beſt is mild bliſters, which will never fail of drawing off by degrees both the air and the fluid matter contained in the tumour, and conſequently of curing the diſeaſe. In order to this, a ſmall quantity of the bliſtering ointment ſhould be laid on every other day for a week, during which a plentiful diſcharge will be produced, and the ſwelling diſperſed. This method will not only cure the diſeaſe, but alſo cure it without leaving a ſcar, or ſtiffening the joint; both which are the common conſequences of firing. But you ſhould uſe the milder bliſtering ointment; I mean that without the corroſive ſublimate.

A wind-gall upon the ſinew, that grows hard, makes a horſe halt, and, in the end, makes him lame.

Your long-jointed horſes are apt to be wind-galled, though they work never ſo little.

The wind-galls that we call ſinewy, happen commonly in the hinder legs, and nothing but fire can cure them; nay, ſometimes fire itſelf will not do. *See* VESSIGNON.

WITHERS OF A HORSE, begin where the mane ends, being joined to, and ending at the tip of the ſhoulder-blades.

Theſe parts ſhould be well raiſed and pretty ſtrong, becauſe it is a ſign of ſtrength and goodneſs; they keep the ſaddle from coming forward upon the horſe's ſhoulders and neck, which immediately galls and ſpoils him, and a hurt in that place is very difficult to cure; they ſhould alſo be lean and not too fleſhy, for then they will be more ſubject to be galled.

As to ſores in the withers: the origin of theſe diſeaſes indicate the cure. If they are cauſed by accidents, and rendered formidable by neglect, care ſhould be taken not to let it increaſe by time; but as ſoon as they are diſcovered attempt the cure, which may in general be performed by bathing the part with hot vinegar three or four times a day. If this ſhould not be ſufficient to diſperſe the tumour, let an ounce of oil of vitriol be added to a quart of vinegar, and the part well bathed with it. You may diſſolve an ounce of white vitriol in a little water, and add the ſolution of the mixture of oil of vitriol and vinegar, which will augment the repellent quality of the medicine. If the ſwelling be attended with heat, ſmarting, and little hot watery pimples, it ſhould be bathed with the following mixture, inſtead of that given above:

Take of crude ſal ammoniac two ounces: boil it in a quart of lime water, or when lime water cannot be had, in the ſame quantity of common water, adding an handful of pearl aſhes; take it from the fire, and when ſettled pour off the clear part of the decoction, and add to it half its quantity of ſpirits of wine. Bathe the part well with this mixture, and afterwards anoint it with linſeed oil, or ointment of elder, which will ſoften and ſmooth the ſkin.

But when the ſwellings are critical, the conſequence of a fever ſettled on this part, you muſt avoid the repelling method, and aſſiſt in bringing the ſwelling to matter, by means of ſuppurating poultices: experienced farriers adviſe, never to open theſe tumors till they break of themſelves: for, if they are opened before they are ripe, the whole ſore will be ſpongy, and diſcharge a bloody ichor, which ſoon degenerates into a ſordid ulcer. But take care to enlarge the openings, and pare away the lips, that your dreſſings may be applied eaſily; and avoid the ligament which runs along the neck to the withers: if a gathering forms on the oppoſite ſide, open it in the ſame manner; but take care they incline downwards, for the ſake of depending orifices, and letting the matter flow off eaſily. If the bones ſhould be found foul they muſt be dreſſed with tincture of myrrh till they ſcale off. If the fungus is very troubleſome, and the diſcharge oily, yellow, and viſcid, pledgets ſoaked in the following (made hot) have been found effectual, bathing it round with ſpirit of wine and vinegar:

Take half an ounce of blue vitriol diſſolved in a pint of water; oil of turpentine, and rectified ſpirits of wine, of each four ounces; white-wine-vinegar, ſix ounces; oil of vitriol and Ægyptiacum, of each two ounces.

When the cavities are truly fiſtulous, the calloſities muſt be cut out, when it can be done, with a knife; and the remainder deſtroyed by corroſives.

When the drugs mentioned in the laſt article cannot conveniently be had, take brandy, and dilute in it a bit of ſoap, and then rub the ſwelling with it till you make a lather; repeat this every three or four hours till the tumor diſſipates. When you cannot get brandy, uſe urine, brine, or water well ſalted, with the ſoap; but theſe muſt be uſed ten or twelve, inſtead of three or four, times a-day.

If all other means are wanting, as ſoon as you perceive this diſorder, take a green turf out of ſome meadow, with the earth ſticking to the roots, and apply it to the ſwelling on the graſſy ſide, renew this every three or four hours till the tumor diſappears, or till you have furniſhed yourſelf with one of the remedies before-mentioned.

Impoſthumations in the Withers.

Suffering matter to gather in the ſwellings on the withers, is the occaſion of this, and a moſt terrible diſorder it is in the army, eſpecially in hot countries, where the flies are very troubleſome. As the horſe moves, the matter trickles down continually between his body and his ſhoulder, and as it can have no paſſage outward, becauſe you cannot force one through the blade-bone, thoſe who know not how to make the following operation, are obliged to give all ſuch horſes over:

You muſt firſt blind your horſe and throw him down on the ground; then take a ſtake about as thick as your leg, four or five feet long, and ſharp at one end, drive

it

it into the ground with a beetle, and place the horſe that it may ſtand juſt between his ſhoulder and his body, ſo that he cannot ſtir while you perform the operation, which is thus done. Tie a cord to the horſe's foot, and about two yards diſtant drive another ſtake into the ground, to ſerve as an axle-tree to a coach or cart wheel, that you muſt put thereon; faſten the other end of the cord to this wheel, and then turn it about, till, by winding up the cord, you extend the horſe's leg as much as it will bear; you may then make an inciſion between the body and the ſhoulder, to the very top, to come at the matter behind the blade-bone, by an opening to be afterwards made. The inciſion is made with a flat-iron, ſomewhat crooked, about an inch broad, and as thick as two crown pieces; the curvity of this inſtrument is in proportion to the ribs, between which and the ſhoulder it muſt paſs, in order to let out the matter that is lodged above. And for this purpoſe you muſt introduce a ſmall rowel, from the top of the withers to the bottom, between the ſhoulder and the trunk, which may be eaſily done if your farrier has ever ſo little addreſs. This rowel muſt be left in only 24 hours, and then let it be dreſſed like any common wound, which method will ſoon put your horſe out of all danger, as the matter between the trunk and the ſhoulder will be diſcharged. You may make the rowel either with Hungary-leather, or with tow and horſe-hair twiſted together, dipping it into warm baſilicon. If at the end of three full days the matter does not run plentifully below, I would recommend the uſe of the rowel a day or two longer.

Never forget, during the whole proceſs of the cure, that your horſe is to have no oats, but only ſcalded bran; beſides that, it is abſolutely neceſſary to make him eat root of baſtard rhubarb, or the herb patience, which grows almoſt in all countries and is a kind of wild ſorrel; it ſhoots up in meadows, and by the ſides of ditches, and ſometimes is very large; the root is yellow, like that of ſorrel, but both ſtalk and leaves are much larger, though of the ſame colour, at the time of ſeeding. That which grows in water is beſt, and next, that which grows in fat land; but for want of one ſort the other may be uſed, and the more a horſe eats of either, cut very ſmall, the ſooner will he be well. This root is alſo good for all other ſorts of wounds whatſoever; and it is certain, that in a temperate climate, when the flies give no diſturbance, a horſe may be cured by means of this root only, without any great operation.

WITHERS, of the bow of a ſaddle. *See* Bows.

WITHER-BAND. A band or piece of iron laid underneath a ſaddle, about four fingers above the withers of the horſe, to keep tight the two pieces of wood that form the bow.

WITHER-WRUNG. A horſe is ſaid to be wither-wrung when he has got a hurt in the withers; and that ſort of hurt is very hard to cure.

WOLF. A kind of wild maſtiff, that preys upon all kind of things, and will feed on carrion, vermin, *&c.* They will kill a cow or a bullock; and as for a ſheep, goat, or good porker, they will eaſily carry him off in their mouths, without its touching the ground; and will, notwithſtanding the load, run away ſo faſt, that they are hardly to be ſtopped but by maſtiffs or horſemen. There is no beaſt that runneth faſter than the wolf, and holdeth ſo long in ſpeed. A dog-wolf may be known from a bitch by the tracks of his feet: for the dog-wolf has a greater heel, toe, and nails, and a bigger foot; beſides the bitch commonly caſts her ſiants in the middle of the highway; whereas the dogs caſt them either on one ſide or other of the path.

When any one would hunt this creature, he muſt train him by theſe means: firſt let him find out ſome open place, a mile or more from the great woods, where there is ſome cloſe ſtanding, to place a brace of good greyhounds in, if occaſion be, which ſhould be cloſely environed, and ſome pond of water by it; there he muſt kill a horſe that is worth little, and taking the four legs thereof, carry them into the adjoining woods and foreſts; then let four men take each of them a leg of the horſe, and drag it at his horſe's tail all along the paths and ways in the woods, until they come back again to the place where the carcaſe of the ſaid beaſt lies; there let them lay down their trains. Now when the wolves go out in the night to prey, they will follow the ſcent of the train, till they come to the place where the carcaſe lies: then let thoſe who love the ſport, come with their huntſmen early and privately near the place; and if they are diſcernable as they are feeding, firſt let them conſider which way will be the faireſt courſe for their greyhounds, and place them accordingly, and as near as they can let them fore-ſtall with their hounds, the ſame way that the wolves fled or are flying either then or the night before; but if the wolves be in the coverts near the carrion that was laid for them to feed on, in ſuch caſe, let there be hewers ſet round the coverts, to make a noiſe on every ſide, but not that where the greyhounds are placed, and let them ſtand thick together, making what noiſe they can to force them to the hounds; then let the huntſman go with his leaſh hound, and draw from the carrion to the thicket's ſide, where the wolves have gone in; and there the huntſman is to caſt off the third part of his beſt hounds, for a wolf will ſometimes hold a covert a long time before he comes out; the huntſmen ſhould keep near the hounds, and encourage them with their voice; for many hounds will ſtrain courteſy at this chaſe, although they are fit for all other chaſes. This creature will ſtand up a whole day before a good kennel of hounds, unleſs greyhounds or wolf-dogs courſe him. If he ſtand at a bay, have a care of being bit by him, for being then mad, the wound is hard to be cured.

It is beſt entering of hounds at young wolves which are not above half a year old, for a hound will hunt ſuch more willingly, and with leſs fear than an old wolf; or they may be taken alive with engines, and breaking their teeth, you may then enter the hounds at them.

When the wolf comes to the greyhounds, they who hold them ought to ſuffer the wolf to paſs by the firſt rank, until he advance further, and then let the firſt rank let looſe their greyhounds full in the face of the wolf; and at the ſame inſtant let all the other ranks let ſlip alſo; ſo that the firſt ſtaying him but ever ſo little he may be aſſaulted on all ſides at once, by which means they ſhall the more eaſily take him.

WOLF-

WOLF-NET, a kind of net ſo called, becauſe it is a great a deſtrover of fiſh, as well in rivers as ponds, and may not unfitly be called The Little Raffle, as being exactly the ſame, except the four wings. *See* Plate XVI.

The firſt figure repreſents it only with the traces or lines, that the form and proportion thereof may be better apprehended.

You muſt begin to work it upon ſixteen meſhes of lever, and to caſt the accrues from four, to four meſhes to the firſt row made, near the lever, and continue the other rows in the ſame manner, making the accrues over-againſt thoſe found at the ranges of preceding meſhes, until the net comes to be a foot and a half long, which will be one of the gullets.

When you are come to this length, you muſt give over making any more accrues, and work without increaſe or diminution; and when you have brought it to be three feet more in length, leave an opening, *See* Plate XVI.

Inſtead of working all that you have hitherto done to your net round ways, return upon your work, and when you come to the end, do the ſame again, and continue this way of making the meſhes till you have wrought a foot in length; and then work round-ways, as at firſt, till you have brought it to be three feet more in length.

This trunk or coffer will conſiſt of ſeven feet without the two gullets: then make the ſecond gullet, by taking two meſhes at a time at each quarter of the round of the net, in order to diminiſh it to ſixteen meſhes, as you had begun at the other end.

When this is done, faſten it to the hoops, by putting the firſt A, E, G, S, exactly upon the range of meſhes, near the firſt, where you have caſt your accrues; and the other D, K, V, F, on the other end of the coffer, that ſo the other two hoops between both ends, denoted by the letters, B, H, C, I, may be at an equal diſtance; then adjuſt the gullets like thoſe of the coffer of the raffle, cloſing the regard M, the four hoops which you uſe to the wolf, will be as big as thoſe of a tun, which may be made uſe of upon this occaſion.

This net muſt be carried to the water-ſide, near the place where you intend to pitch, which to do well ſhould be ſome ground full of ruſhes, ſedges, and ſuch like water-graſs; then, with a paring-knife, quarter out a place for the nets by cleanſing away all the traſh and weeds near it, the larger the better, eſpecially if you cut two alleys in a direct line, a pretty length, one on each ſide the net, by which the fiſh might be invited, and, as it were, guided to the net.

Then you having ready four ſticks or poles D, E, K, U, about the thickneſs of a man's arm, and in length five feet and a half, with holes and notches near their ends, tie them with cords round the hoops to keep the net tight, as is repreſented by the letters A, B, C, D.

Let alſo four little cords hang to the ſtick G, H, I, K, in order to tie ſtones to them, to ſink the net to the bottom of the water; and alſo faſten a cord L, R, three fathom in length, to the pole L, for drawing the net to ſhore, that you may not be obliged to go into the water for it, though perhaps you were forced ſo to do, when you laid it there; this do, eſpecially if you place the net in the middle of any wide river; but if you place it within ten or twelve feet of the bank, you may then caſt in the net, and ſettle it afterwards, according to your mind, by the help of a long pole, or the like, though the former is a better way, but indeed more troubleſome.

WOLVES-TEETH. An inconvenience that happens to a horſe, being two ſmall teeth which grow in his upper jaws, next the great grinding teeth, which are ſo painful to him that he cannot endure to chew his meat, but is forced either to let it fall out of his mouth, or to keep it ſtill half chewed.

For the cure: Tie up the horſe's head to ſome poſt or rafter; open his mouth with a cord as well as you can, and having an iron inſtrument made like a carpenter's gouge, with the left hand ſet the edge of the tool to the foot of the wolfs tooth on the outſide of the jaw, turning the hollow ſide of the tool downwards, and knock it out as ſteadily as you can with a mallet, and put ſome ſalt finely powdered into the hole.

Now, if the upper jaw-teeth hang over the under jaw-teeth, and ſo cut the inſide of the mouth, then take your gouge and mallet, and pare the teeth ſhorter by little and little, turning the hollow ſide of the tool downwards towards the teeth; for, by ſo doing, you ſhall not cut the inſide of his cheeks; then file them all ſmooth, not leaving any ruggedneſs, and waſh the horſe's mouth with ſalt and vinegar.

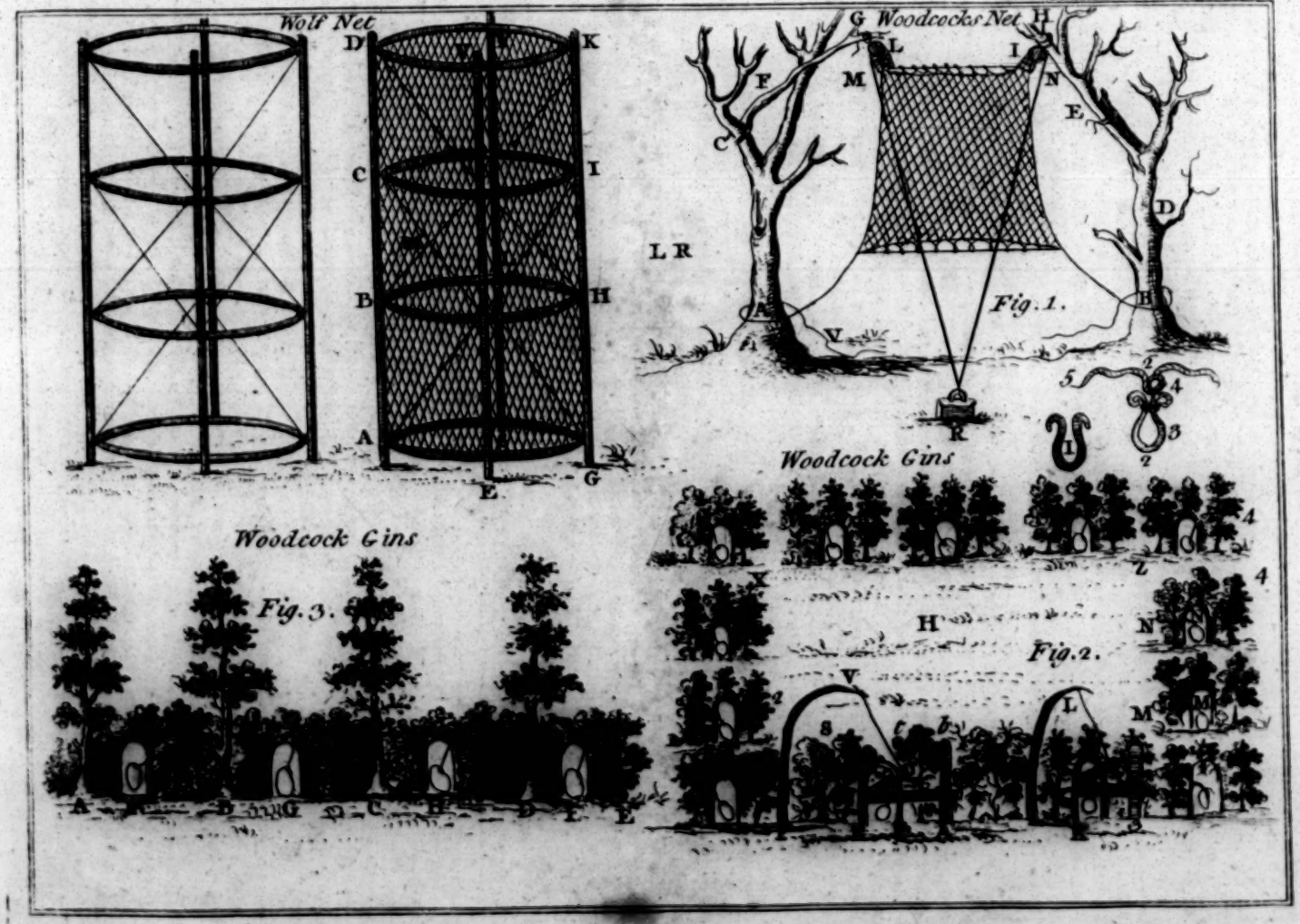
WOODCOCK. A travelling bird, having a very long bill, and ſpotted with grey. They commonly come into our and the neighbouring countries about the middle of *October*, and go away again in *March*. They do not ſtay above eight or ten days in a place; or if they tarry longer, it is becauſe they are hurt, and ſo ſtay there till they are cured.

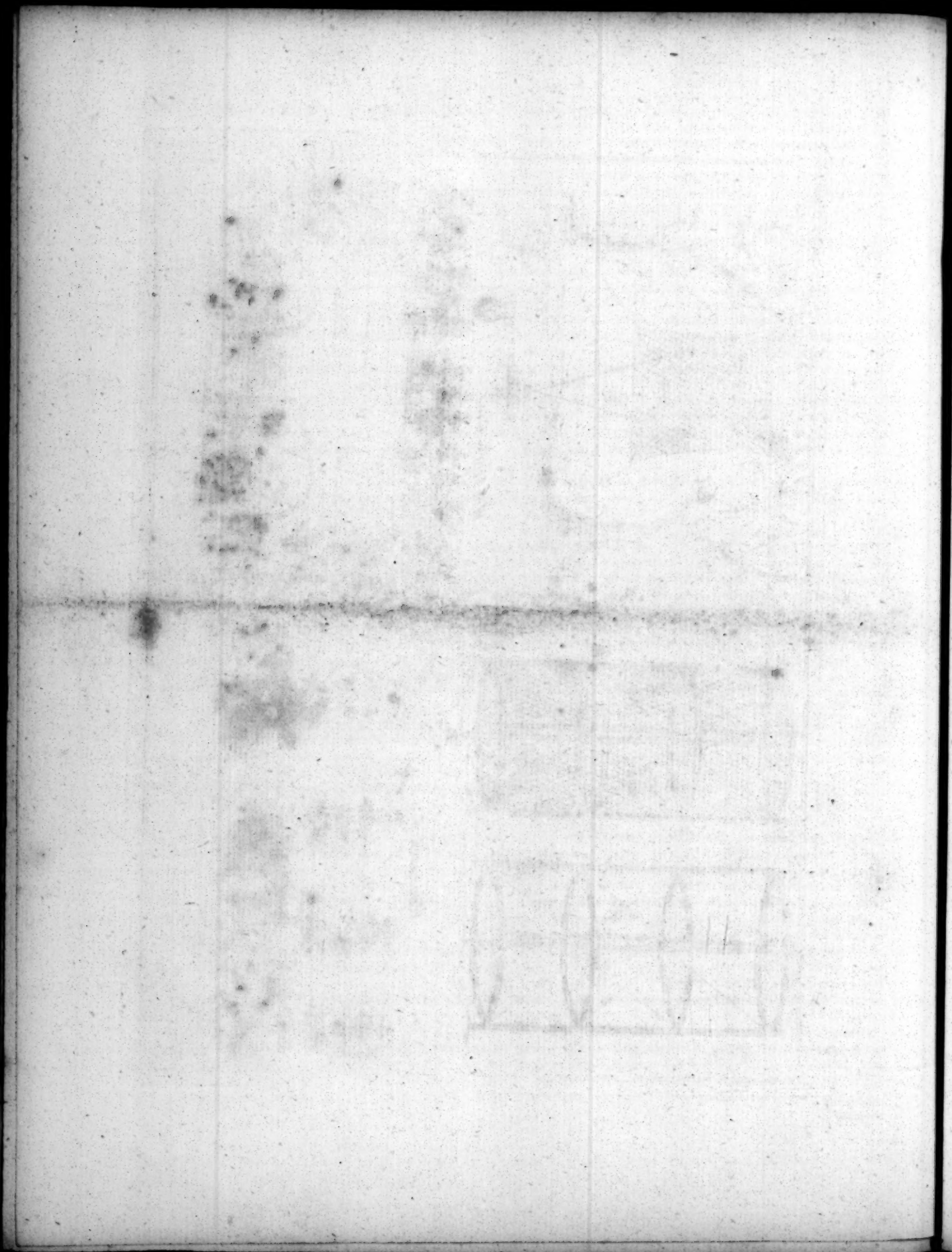
They ſeldom, if ever, fly in the day-time, unleſs forced to it by man or beaſt, and then they retire into thick woods, where there are void ſpaces covered on all ſides, there they abide for the whole day, ſearching for earth-worms under the leaves, *&c.* When night comes on, they go out of the woods in queſt of water and meadows, where they may drink and waſh their bills, which they have fouled by thruſting into the earth; and having paſſed the night, as ſoon as the day begins to appear, they take their flight to the woods. In their flight they uſe ſhady places, and coaſt it along a great way in ſearch of the talleſt woods, ſo that they may be the more concealed, and be more under covert from the wind. They fly always low, till they find ſome glade to go acroſs, and love not to fly high, nor dare to fly among trees, becauſe, like hares, they cannot ſee well before them, and for which reaſon are eaſily taken with nets ſpread along the foreſt, or in glades.

Your draw-nets are very profitable in ſuch countries as are very woody, for you ſometimes take a dozen of woodcocks in them.

Suppoſing then that your range of wood be about three hundred paces long, more or leſs, in ſome place towards

Plate XVI.


Wolf Net
D
K
C
I
B
H
A
E
G
Woodcocks Net
G
H
L
I
F
M
N
E
C
D
LR
A
V
B
Fig. 1.
5
4
3
2
1
R
Woodcock Gins
Fig. 3.
A
B
G
C
H
D
F
E
Woodcock Gins
4
X
H
N
Fig. 2.
V
L
M
8
a
b
c



towards the middle cut a walk through it, ſo that there may be a ſpace of ſix or eight fathoms between the tree A, and the tree B; the place muſt be well cleared, and without trees, buſhes, under-wood, or ſtones, and ſix fathom ſquare; then prune, or cut off all the front boughs of the two trees, A, B, to make way for the net to hang and play without being entangled. See *Plate* XVI. *fig.* 1.

The next thing is, to provide two ſtrong logs of wood, which open or cleave at the biggeſt ends, as marked C, and D: tie the middle parts faſt to ſome boughs of the tree, as the letter E, and F, direct, and let the tops hang over as G, and H, repreſent, to the end that the net may be a little diſtance from the trees: you ſhould have always in readineſs good ſtore of pullies or buckles made of glaſs, box, braſs, or the like, which ſhould be about the bigneſs of a man's finger, according to the form deſigned by the ſecond figure, and faſten one at each end of the perches or logs G, and H.

Having tied on your pullies about two branches, marked 3, a certain cord of the thickneſs of one's little finger, then tie another knot in the ſaid cord, about the diſtance of a hand's breadth, from the knot marked 4, and ſo let the two ends of the cord 5 and 6, hang down about a foot long each, that therewithal you may faſten them to the pullies, which are at the end of the perches or logs, as repreſented by the letters I, and L, cloſe to the notches of the perches G, and H.

Theſe notches ſerve to hinder the pullies from deſcending lower than the place where you would have it remain.

Then clap into each pully a ſmall packthread, the end of each of which ſhould reach to the foot of the trees, that by the help of them you may draw up two ſtronger cords into the ſame pullies where you hang the net, and not always be forced to climb up into the tree: theſe latter you may let always hang, provided you live by honeſt neighbours.

The laſt thing to be provided is a ſtand, to lie concealed, and wait for the coming of the woodcock: it matters not on what ſide it be, provided it be over adroit, ſix or eight toiſes from the middle of the net, as at the place marked R.

About half a dozen boughs of about the height of a man, pitched up together, and interwoven, may ſerve for a ſtand; you may ſit upon a little hawn or fern, and at three or four feet diſtance from thence towards the net, force a ſtrong ſtake into the ground, at the place marked Q; whereon faſten the lines of the net when it is drawn up.

It is not neceſſary to make uſe of two pullies, one only is enough on a ſide, as at N, and the other at I; then tie a long pole at one of its ends, and the other is faſtened to a tree a little above C, by the means of a cord, which gives the pole liberty to be raiſed up or lowered, as you would raiſe up or lower the net; the ſportſman ſhould have one cord to hold, and place himſelf on the ſide of the tree B, where he may not be diſcerned.

When a woodcock is taken, the net muſt be let down as readily as poſſible, for he may by ſtruggling make his eſcape, and then you muſt break a wing and cruſh his head: the net muſt be immediately ſet up again, for it may happen the other woodcocks will come to be taken, which you miſs, if tedious at your work.

If any beaſt comes athwart you, you muſt let him paſs under your net about five or ſix feet; then make a noiſe with a ſhout, and ſo let go; the beaſt, at the firſt noiſe, will retire back, and ſo become enſnared; to be ſure, if you let go while he is juſt under the net, he will either ſpring forwards or backwards, and not be taken, but will moſt likely retire back.

It often happens, that a man perceives a great thoroughfare of birds between ſome coppice timber-woods over a certain piece of ground, where he wants the conveniency of a good tree, to oppoſe ſome other which poſſibly ſtands according to his mind; but whether he wants one or two, if he finds the place likely, and that, in probability, it will quit his coſt; let him then take one or two trees fit for the purpoſe, and plant them deep in the ground, that they may ſtand all weathers.

If you would take woodcocks by nets in high woods, by driving them therein, your net muſt be like the rabbit-hays, but not ſo ſtrong, and about twenty fathoms long, and you ſhould have two or three of them.

Being provided with nets, and having the aſſiſtance of five or ſix perſons to go into the wood with you, which ſhould be at ſeven or eight years growth, for the older the better, go into ſome part thereof, about the middle, if it be not too large, and pitch your nets along as you do for rabbits, but one joining to the other, ſlope-wiſe, hanging over that way which you deſign to drive the cocks: your nets being thus fixed, let your company go to the end of the wood, at about ten rods aſunder, and having ſticks in their hands, make a noiſe therewith, and their voices, as if they were driving cattle along, and ſo go forward, till you come to the place where the nets are ſet, and you will not fail to catch thoſe in that part of the wood: then, when that part of the wood is thus drove, turn your net ſlopewiſe on the other ſide, and going to the other end, obſerve the aforeſaid directions: you may, by this way, take them at any time of the day with great eaſe and pleaſure.

To catch Woodcocks in Woods by Gins, Springs, or Nooſes.

Such as are wont to follow this work, after they have ſet them, need not loſe their time, but go out at four in the afternoon, and the effect will be much the ſame; they muſt be provided with ſeveral dozens of theſe ſnares, more or leſs, according to the place in the wood where the woodcocks are; theſe nooſes are made of good long horſe-hair, twiſted together with a running buckle at one end, and a great knot at the other, which they paſs through the middle of a ſtick cleft with the point of a knife; and then open it, and put in the end of the horſe-hair nooſe, and then make knots to keep it tight, to hinder it from paſſing through

the cleft; this ſtick is about the bigneſs of one's little finger, and about a foot long, being ſharp-pointed at one end, the better to fix it in the ground, to each of which they faſten a nooſe or ſpring. *See* Plate XVI. Fig. 2.

Having bundled them up, you go into a coppice, that has moſt leaves, in order to find if there are any woodcocks there; and this may be perceived by the leaves on the ground, which are ranged both on one ſide and the other by the woodcocks, in ſearching for worms under them, and by their dung, which is of a dark grey colour; when you find there are woodcocks in that place, then take a great round of about forty or fifty paces off, which is repreſented by the following figure:

The moſt proper places for this purpoſe are, amongſt buſhes and ſmall coppices, and the manner is thus:—ſuppoſe the branches marked A, B, C, D, E, were ſo many ſtumps; make a hedge-row of half a foot high, of broom, furze, brambles, &c. from one ſtump to another, leaving a gap in the middle for the woodcocks to paſs, as F, G, H, I; ſo that the woodcock walking in the wood in ſearch of food, and finding this hedge-row, he will follow it till he comes at the gap, for he will never fly; and therefore you ſhould fix the ſtring there, opened in a round form, and laid upon the flat ground, ſupported only by ſome leaves; and the woodcock entering the gap, can ſcarce avoid being taken by the legs; the form of the extended ſnares are repreſented in Plate XVI. fig. 3.

If in walking in the woods, you ſhould find nooſes, and the like, that are ſet five or ſix inches above the ground, ſuch as are denoted by the letters F and G, it is a ſign partridges frequent that place, and that the peaſants come to take them; we often find partridges taken in the ſame manner: there are thoſe who make little hedge-rows of different lengths, and in different numbers, as they think fit, according to the game they ſuppoſe the place may afford.

It has been obſerved, that woodcocks, in the night-time, frequent ſprings, and the like places, becauſe they do not freeze, and thoſe perſons who make it their buſineſs to catch them, will not forget in the morning to walk along the ſides of rivulets, ſprings, marſhes, and ditches, that are under the covert of woods, in order to find out whether any woodcocks had been there the night before; for they will not fail to return thither, if they have been once there before, and therefore they muſt lay ſnares for them, according to the following figure:

Suppoſe the oblong ſquare, *See* fig. 2, ſhould be a ditch full of water, frequented by woodcocks, and that its bank ſhould be that ſide repreſented by the figures 2, 3, 4, ſtop all other places, by which the woodcock can come at the bank of the ditch, from 2 X as far as A Z, with broom and the like things, and on the faireſt bank make a ſmall hedge, 2, Y, P, 3, M, N, about five or ſix inches, and about half a foot diſtant from the water; but in this hedge leave gaps at the diſtance of about five or ſix feet from one another, more or leſs, according to the extent of the place: theſe paſſes are denoted by the letters P, 3, M, where the ſnares or ſprings are laid; thoſe who follow this ſport, fix at the edge of the gap five inches high, and not ſo thick as a man's little finger, and within half a foot of the other ſide of the paſs, a ſmall bow, two or three fingers high, which forms, as it were, a round gate or door, facing the ſtick A.

Then they have a ſmall wooden flat crotchet, ſeven or eight inches long, with a notch in it, near the end R, which is put into the ſtick A, and the other end paſſes under the bow; they alſo take a ſwitch of hazel, or ſome wood, which being folded will grow ſtraight of itſelf; this rod, which is a finger thick, and about three feet long, is fixed in the ſmall hedge; they tie to the end V a packthread half a foot long, to the end of which packthread they faſten a horſe-hair ſnare or ſpring, with a ſmall ſtick cut at both ends, and made like a wedge to cleave wood with; the reject muſt be folded and paſs the letter P underneath the bow, and doing the ſame alſo by the end of the ſmall ſtick, faſten it under the edge S of the bow, and raiſing the bird-trap or ſnare, fix the other end of the ſtick in the notch R, by which means the machine will be kept light; then extend the ſnare P in a round or over the trap; but it muſt be ſo pliant, that as ſoon as the woodcock would paſs through and put his foot upon the trap, the reject will immediately unbend, and catch him by the leg.

Others faſten a ſmall circle to the trap, that ſo the woodcock may have more room for his feet, and ſo make the reject of uſe to you, and catch him; for it may happen, that as he croſſes the gap, he does not paſs over it.

This ſecond device with the circle, is repreſented by the letter K; others make uſe of ſnares, which they adjuſt, as has been ſhewn in the preceding article, and which are ſet forth in the cut, by the letters M, N. *See* DRAW-NET, Plate V.

To take Woodcocks with Bird-Lime, &c.

Woodcocks and ſnipes are difficult to diſcover, they lying cloſe, and not reſorting much together, eſpecially in the day-time.

The cuſtom of the woodcock is uſually to lie on banks by hedges and ditches againſt the ſun; you may take notice, that on a day after a moon-ſhiny night, they will ſuffer one to come better to find them than after a dark night, and for this reaſon, becauſe they can ſee to feed in moon-ſhiny-nights, and will not be ſo ſtill and watchful as when taking their reſt.

The ſnipes naturally lie by the ſides of rivers, when all plaſhes are frozen, and always with their heads up or down the ſtream, and not athwart it; and in order to find them out a perſon muſt be expert in the knowledge of their colours.

Now, in order to take woodcocks, &c. with bird-lime, you muſt provide yourſelf with ſixty or ſeventy twigs, which you muſt daub with bird-lime neatly and ſmoothly; and having found their haunts, which you may diſcover by their dung, which is generally in low plaſhy places, and ſuch as have plenty of weeds, and not frozen in froſty weather; and at ſuch places

are

are the twigs to be ſet, more or leſs, as you think fit, at about a yard diſtance one from the other, ſetting them ſo as to ſtand ſloping, ſome one way, and ſome another.

And if you deſign to ſee ſport, you muſt be concealed.

And if there be any other open place near to that where you have ſet your twigs, beat them up, or elſe ſet twigs there too.

It is ſaid that theſe birds put their bills into the moiſt places of the earth where they frequent, and ſo jogging and moving them about, diſturb the worms and cauſe them to come out, and ſo they become their prey.

WOOD-LARK. A fine bird, not much inferior to the nightingale in ſong; but of this kind, as well as all the reſt, there are ſome that far excel others in length and ſweetneſs of ſong.

Though this is a very tender bird, yet it breeds the ſooneſt of any that we have in *England*; it is alſo a hot and mettleſome creature, ſo that if the wood-lark be not taken in *January*, or the beginning of *February*, they grow extraordinary rank, and pine away in a ſhort time, by reaſon of the rankneſs of their ſtones, which are found very much ſwelled in them when they are found dead.

They delight much in gravelly grounds and hills that lie againſt the riſing of the ſun, and in the ſtubs of oaks.

The females couple with the males the beginning of *February*, at which time they part with all their laſt year's brood, and immediately go to neſt.

They build moſt commonly in layer grounds, where the graſs is pretty rank, and grown ruſſet; uſing bennet-graſs, or ſome of the dead graſs of the field; and always make it under a large tuft, to ſhelter themſelves from the wind and weather, which at that time of the year is commonly very cold.

As for their young, they feed them with a ſmall kind of worm; but they cannot be brought up to any kind of perfection from the neſt, as ever yet could be found.

The young branchers are firſt taken in three months of the year, *June*, *July*, and *Auguſt*. The next ſeaſon of their taking is their general flight time, which is the latter end of *September*, for then they rove from one country to another; and laſtly, from the beginning of *January* to the latter end of *February*, at which time they are all coupled, and return to their layeſs, or breeding places.

Thoſe that are taken in *June*, *July*, or the beginning of *Auguſt*, are for the moſt part catched with a hobby, after the following manner:

Go out in a dewy morning on the ſide of ſome hills, which lie oppoſite to the riſing ſun, where they moſt uſually frequent; then ſurround them two or three times with the hawk upon the fiſt, and make him hover when you come indifferent near: whereupon they will lie till you clap a little net over them, which you are to carry upon the end of a ſtick.

Or elſe if three or four perſons go out together, and take a net made in the form of thoſe uſed for partridges, when you go with a ſetting-dog, only the meſhes muſt be ſmaller; and then your hawk to the lark will be like a ſetting-dog to partridges, ſo that with ſuch a net you may take the whole flock at the draught: for theſe larks keep company with their young ones till flight time, and then they part.

Thoſe that are taken in *June*, *July*, and *Auguſt*, ſing preſently, yet laſt but a little time in ſong, for they immediately fall to moulting, which if they withſtand, they commonly prove very ſweet ſong birds, but not ſo laviſh as thoſe that are taken in the ſpring; they are alſo commonly very familiar.

Such as are taken at flight, are brave, ſtrong, ſprightly, ſtraight birds, but do not uſually ſing till after *Chriſtmas*.

Thoſe taken in *January* and *February*, ſing within two or three days, or a week at the fartheſt, if good conditioned; and theſe laſt commonly prove the beſt, as being taken in full ſtomach.

As for the ordering of wood-larks, you muſt have a cage with two pans, one for mixed meat, and another for oatmeal and hempſeed: boil an egg hard, and the crumb of a halfpenny white loaf, and as much hempſeed as bread; chop the egg very ſmall, and crumble the bread and it together, and then pound the hempſeed likewiſe very ſharp in a mortar, or bruiſe it with a rolling-pin, and mingle all together, and keep it for uſe.

Strew fine red gravel at the bottom of the cage, and renew it every week at fartheſt; otherwiſe the lark will clog his feet with his dung, and will not take half that delight in himſelf; for he takes a great deal of pleaſure in baſking himſelf in ſand, which if he has not pretty often, he will grow louſy, and if he does ſo, ſeldom, if ever, comes to good.

The perch alſo in the cage muſt be lined with green bays, unleſs you make a perch of mat, which theſe larks do take great delight in.

But if he be wild when firſt taken, keep him three or four days without company till he begins to eat his meat, and becauſe ſometimes they do not find the pan till near famiſhed, ſtrew hempſeed and oatmeal upon the ſand.

How to know a Cock Wood-lark from a Hen.

1. This may be done by the loudneſs and length of his call.

2. By the tallneſs of his walking about the cage.

3. The doubling of his notes in the evening, which is called cuddling, as if he was going to rooſt; but if you hear him ſing ſtrong you cannot be deceived, for hens will ſing but little.

The Diſeaſes incident to Wood-larks.

They are tender birds if they are not rightly ordered, but when well managed have been kept ſix or ſeven years with much pleaſure, ſinging better and better every year, and at laſt have ſung real variety of notes, even to admiration.

The particular diſtempers wood-larks are ſubject to, are, the cramp, giddineſs in the head, and to be very louſy; for though they are not ſubject to it when they are abroad, in cold weather, yet they have a variety of motion, as flying and running, which they have not in a cage.

And beſides, if the gravel in their cage be not often renewed, their dung will clog their feet, benumb them, and cauſe the cramp.

To WORK A HORSE; is to exerciſe him at pace, trot, or gallop, and ride him at the manage.

To work a horſe upon volts, or head and haunches in, or between two heels, is to paſſage him, or make him go ſideways upon two parallel lines.

WORMS IN DOGS. All ſpaniels have certain ſtrings under their tongues, by moſt called a worm; this muſt be taken out when they are about two months old, with the help of a ſharp knife to ſlit it, and a ſhoemaker's awl to raiſe it up; you muſt be careful to take all out, or elſe your labour is to little purpoſe; for till then, he will be hardly ever fat and right, as the worm or ſtring will grow foul and troubleſome, and hinder his reſt and eating.

WORMS IN SPANIELS are ſometimes bred in a wound, after a dog has been hurt; eſpecially if it be in a place where the dog cannot come at the place to lick it; for if he can, it will need no other cure.

For the Cure: Take powder of matre-ſilva dried in an oven, or in the ſun, and ſtrew it on the affected part, when little worms have been bred in the wound; becauſe they will not only much retard the healing of it, but alſo make it grow worſe.

To remedy which, put a little ivy into the wound, and let it remain in it a whole day, then waſh the part with white wine, and anoint it with an ointment made of bacon-greaſe, oil of earth-worms and rue.

If a ſpaniel be troubled with worms within his body, give him the yolk of an egg, with two ſcruples of ſaffron in a morning faſting, and keep him faſting till the next morning.

Of Worms breeding in the Hurts and mangy Parts of Spaniels.

Theſe worms obſtruct the cure, either of wounds or mange, and cauſe them either to continue at a ſtay, or to grow worſe and worſe.

To remove this obſtruction, put the gum of ivy into the wound, and let it remain there a day or two, waſhing the wound with wine, and afterwards anoint it with bacon-greaſe, oil of earth-worms, and rue.

The powder of wild cucumbers is alſo very good to kill theſe worms, and will prove a great corroſive in eating away the dead fleſh, and increaſing the good.

If the worms be within the body, you muſt deſtroy them in the following manner:

Cauſe the ſpaniel, faſting, either by fair means or foul, to eat the yolk of an egg, with two ſcruples of ſaffron pulverized, and make a confection with the ſame egg, and keep him faſting afterwards till night.

If a ſpaniel be hurt in a place where he can come to lick his wound with his tongue, he will need no other remedy; and that will be his beſt ſurgeon: but when he cannot do that, then ſuch wounds as are not venomous, may be cured with the powder of matreſilva, dried either in an oven, or in the ſun.

If the wound be the bite of a fox, anoint it with oil, wherein earth-worms and rue have been boiled together.

If by a mad dog, let him lap twice or thrice of the broth of germander, and eat the germander boiled.

Others pierce the ſkin of his neck with a hot iron juſt betwixt his ears, ſo that the fire may touch both ſides of the hole made: and afterwards plucking up the ſkin of the dog's ſhoulders and flanks, backwards, thruſt it through with a hot iron in like manner, and by giving the venom this vent is a ready way to cure him.

WORMS IN HORSES: are produced from raw and indigeſted humours. To cure:

Take antimony in fine powder a quarter of a pound, of quickſilver an ounce; boil them in two pailfuls of water till it come to one and a half, of which mix half a pailful with as much water as the horſe will drink, having firſt ſtrained it, and ſo continue till he drinks the whole. *See* BOTTS, *&c.*

Mr. LAWRENCE, in his Treatiſe, ſays, "The only peculiar ſymptom of worms, is the horſe's rubbing his tail often, without any apparent humour or eruption; the general ſigns are ſimilar to thoſe which denote griping pains. Farther, a horſe troubled with worms will eat heartily, and yet be always lean, and out of condition, his coat ſtaring as if ſurfeited; a ſickly paleneſs of the mouth and tongue, and cadaverous ſmell; he will be tucked up in his flanks, and occaſionally heave much, turning his head now and then towards them, and ſtriking his belly with his hinder feet. The dung will be often mixed with a yellowiſh matter, like melted ſulphur, or be otherwiſe diſcoloured, foul, and fetid. Worms, and the ſlimy ſpawn of them, will be ſometimes ejected, but not always.

"The remote cauſe of worms is a colluvies of indigeſted matter, which for want of timely evacuants, putrefies; or a natural prediſpoſition in the animal fluids to putrefaction.

"In the cure mercurials alone are to be depended upon, and as in proper hands they are perfectly ſafe, even for human infants, it is truly unprofitable trouble to uſe any other means. RIVERIUS ſays, that oil will ſuffocate all kinds of worms; if ſo, it ſurely deſerves notice as an anthelmintic.

"Oil clyſter. Prepare a ſtrong decoction, or infuſion, in boiling water, of tobacco, ſavin, wormwood, rue, garlic, and coralline, if the latter can be procured; to one pint of this add a pint of linſeed-oil, and inject the mixture, blood warm, the laſt thing at night. Repeat it or not, at diſcretion, at two o'clock next day; and at night give the horſe two drachms of calomel, in very fine powder, made up with cordial ball, or for want of that, with powdered anniſeeds, and a little ginger and oil; or with diapente. In the morning give a purge with fine aloes, jalap, and myrrh, balled up with hard ſoap and rectified oil of amber, mild or ſtrong according to circumſtances, particularly with relation to the effects of the clyſters and the mercury. This phyſic being repeated every ten days, with the clyſters intermediately at pleaſure; the courſe will eradicate and ſweep away the whole generation of worms, together with that collection of foul materials of which they

they are made. If the calomel ſhould be found too mild, the more powerful preparations of mercury may be ſubſtituted, as diagridium or turbith; ſcammony alſo is very efficacious. Clothe well, and beware of cold. Should the ſubject be too much reduced, and the powers of the ſtomach debilitated by the neceſſary force of thoſe powerful ſpecifics, recruit with bark, bitters, and ſteel; or two drachms to half an ounce ſteel filings, in the corn, for ſome weeks; or graſs. Where the time and attendance cannot be ſpared for the above regular courſe, it has always been uſual to give worm-powders, or other alteratives, in the horſe's feeds; and æthiops has been the common vermifuge baſis from the earlieſt days of GIBSON." Mr. LAWRENCE recommends a trial of alkalized or calcined mercury, half a drachm, to a drachm of which, finely powdered, may be given every other day, mixed up with a large ſpoonful of powdered guaiacum, turmeric, and anniſeeds, and continued a fortnight to a month, the uſual care being taken of cold, and warm water given if poſſible; the clyſters alſo may be uſed. This method is very ſuitable for draught horſes.

According to the old farriers, there are four different ſpecies of worm generated in the body of a horſe. "Little ſhort worms, with great red heads, and long ſmall white tails, called botts. Short thick worms with black hard heads, all of a bigneſs, like a man's finger, called truncheons. Worms from ſix to eighteen inches in length, and as thick as a man's finger, which are, the rotundi, or earthworms; and red maw-worms, reſembling wood-lice, but with fewer feet, having thick, ſhort, ſharp heads, velveted on the back like a bat, and made up of ſeveral folds." Theſe laſt, it is aſſerted, will perforate the ſtomach of a horſe, and kill him: but it is not yet determined, whether worms can really exiſt in the ſtomach of a living animal; that they are found there after death every one knows; but BRACKEN thinks it probable they make their way thither from the *duodenum*, after the vital functions have ceaſed.

WORMING; or the taking away the nerve from under the tongue of a dog, will prevent him from ever biting, if he ſhould grow mad.

WORM-CHOLIC. A diſtemper in horſes, occaſioned by broad, thick, and ſhort worms, or trunchions, like little beans, of a reddiſh colour, which ſometimes bring violent cholic pains upon the poor beaſt: they gnaw the guts, and ſometimes eat holes through the maw, which kills the horſe. The voiding red worms along with the excrements, is a ſign of this diſtemper, for long white ones ſeldom gripe a horſe: ſo are his biting his flanks or his belly, in the extremity of the pain, or tearing of his ſkin, and then turning his head and looking upon his belly; you alſo find him ſweat all over, frequently throwing himſelf down, and ſtart up again, with other uncommon poſtures: ſeveral remedies are ſet down for this diſtemper, but that which follows being juſtly reputed a ſpecific for this and other horſe cholics, it is neceſſary it ſhould be inſerted.

Take roots of maſterwort, leaves and roots of radiſhes, great centaury and tanſy, of each half a pound, all dried in the ſummer ſun, or moderate heat of an oven in winter; half as much of each of theſe, *viz.* germander roots, angelica and elecampane, all dried in the ſhade, ſea moſs, and liver of aloes, of each two ounces; of galangal, nutmeg, and ſal prunella, one ounce each; they muſt all be pounded apart, then mixed and kept in a leather bag, or glaſs bottle ſtopped up cloſe: the doſe, according to the ſize of the horſe, muſt be from an ounce to two ounces and a half, to be mixed with three or four drams of old treacle, or an ounce of diateſſeron or mithridate, and given in a pint of white wine; after which the horſe muſt be walked in his cloaths.

If you ſuſpect worms, an ounce and a half of this ſpecific powder, mixed with half an ounce of *mercurius dulcis*, will infallibly kill them; and therefore an ounce of ſpecific powder may be mixed with as much aloes, three drachms of *coloquintida*, as much agaric, and half an ounce of turbith, giving him the whole in a quart of white wine, with a quarter of a pint of the gall of an ox, covering him after it, and walking him for a quarter of an hour; 'tis true, this will at once both purge and kill the worms, though it is only fit for great eaters, and that about two or three days after the cholic fit is over.

If a horſe is troubled with worms or breaking out, take a handful of box leaves, and having dried them, pound them to powder, and mix them with the ſame quantity of ſulphur in powder; and after the horſe comes in from hunting, or any hard labour, rub him well and dreſs him, and let him ſtand a good while upon the bridle, and let the firſt meat you give him be a handful or two of well ſifted oats, and a good quantity of this powder ſprinkled among them.

But you muſt do this with that cautiouſneſs, that the horſe may not take a diſtaſte to his meat on that account.

Or take hepatic aloes about five drachms, reduced to powder, and make it up into pills with freſh butter, and give the horſe in ale-wort, a horn full of wort to every pill: let him have three of them. Or,

Take leaves of ſavin, and mix them well with honey and freſh butter, and making this maſs into two or three balls or pills, give them the horſe with a horn of ſtrong beer after each ball.

WORMS FOR ANGLING; are the aſh-grub, a milk-white worm with a red head, and may be had at any time from *Michaelmas* till *June*. It is to be found under the bark of an oak, aſh, alder, or birch, if they lie a year after they have been cut down. You may likewiſe find it in the body of a rotten alder, if you break it with an axe; as alſo under the bark of a decayed ſtump of a tree. It is alſo a good bait for a grayling, chub, roach, and dace.

The brandling, gilt-tail, and red-worm, are all to be found in old dunghills, or the rotten earth near them, but the beſt are found in tanners yards under the heaps of bark which they throw out after they have done with it: the brandling is moſt readily met with in hog's dung. Theſe are good baits for trout, grayling, ſalmon-ſmelts, gudgeons, perch, tench, and bream, or any fiſh that takes a worm.

The clap-bait, or bott, is found under cow-dung, and

and is like a gentle, but bigger. You muſt ſeek for it only on land that is light and ſandy, for it is much of the ſame nature with the earth-bob, and may be kept in wet moſs for two or three days. It is an excellent bait for a trout, but almoſt every other fiſh will take it.

The cad-bait, caddis-worm, and ſtraw-worm, are only different names for the ſame bait. They are found in pits, ponds, brooks, and ditches, and are covered with huſks of ſticks, ſtraws, or ruſhes, and ſtones. Thoſe with ſtones or gravel huſks are peculiar to brooks, and thoſe with ſtraw and ruſhes to ponds, and all the three ſorts may be found at one and the ſame time. They are very good baits for trouts, grayling, carp, tench, bream, chub, roach, dace, ſalmon-ſmelts, and bleak. The green ſort are found in *March*, the yellow in *May*, and a third ſort in *Auguſt*. Thoſe covered with ruſhes are always green, and thoſe with ſtone-huſks uſually yellow all the ſeaſon.

About a week or nine days in *May* cad-bait fiſhing comes in ſeaſon; which is the firſt bait to be uſed in a morning, and may be continued to the middle of the day.

It is an excellent bait till the middle of *June*, and is to be uſed with a hook leaded on the ſhank, and the cad-bait drawn on to the top of it. It will take in deep waters as well as in ſtreams, by moving it up and down about nine inches or a foot from the bottom; this is commonly called ſink and daw. There is another method of fiſhing with cad-bait, at mid-water, but then you muſt put a canon-fly at the point of your hook.

This bait is a good bottom-bait, if the water be clear: and is to be preferred to the worm at leaſt three degrees to one, becauſe all ſorts of pool fiſh, and even the eel, are great lovers of it.

The earth-bob, or white-grub, is a worm with a red head, as big as two maggots, and is ſoft and full of whitiſh guts; it is found in a ſandy light ſoil, and may be gathered after the plough, when the land is firſt broke up from grazing. You may know in what ground to find them by the crows, for they will follow the plough very cloſe where theſe worms are to be met with. This is chiefly a winter-bait, from the beginning of *November* to the middle of *April*, and is proper for chub, roach, dace, bream, tench, carp, trout, and ſalmon-ſmelts. They are to be kept in a veſſel cloſe ſtopped with a ſufficient quantity of the earth they were bred in, and they will be ready for uſe all the winter. From this bait ariſes the *May* fly.

The flag worm, or dock-worm, are found in the roots of flags that grow on the brink of an old pond. When you have pulled up the root, you will find among the fibres of it reddiſh or yellowiſh caſes; theſe you muſt open with a pin, and you will find a ſmall worm longer and ſlenderer than a gentle, with a red head, a paliſh body, and rows of feet all down the belly. This is an exceeding good bait for grayling, tench, bream, carp, roach and dace.

The lob-worm, dew-worm, garden-worm, or twatchel, as differently called, is a proper bait for ſalmon, trout, chub, barbel, and eels of the largeſt ſize. It is to be found in gardens, or church-yards, by the help of a lanthern, late in a ſummer's evening. In great droughts, when they do not appear, pour the juice of walnut-tree leaves, mixed with a little water and ſalt, into their holes, and it will drive them out of the ground.

The marſh-worm is got out of marſh-ground on the banks of rivers, and is of a bluiſh colour: it is a likely bait for ſalmon-ſmelts, gudgeon, grayling, trout, perch, bream, and flounders, in *March*, *April*, and *September*, though they uſe it from *Candlemas* till *Michaelmas* preferably to any other.

The tag-tail is of a pale fleſh-colour, with a yellow tag on his tail almoſt half an inch long; they are found in marled land, or meadows, after a ſhower of rain, and are a good bait for a trout, if you angle for them after the water is diſcoloured with rain.

And here you muſt obſerve, that all worms ſhould be well ſcoured in moſs that has been well waſhed and cleanſed from all dirt and filth; after it is wrung very dry, both the moſs and the worms ſhould be put into an earthen pot cloſe ſtopped, that they may not crawl out. This pot ſhould ſtand cool in ſummer, and the moſs be changed every fourth day; but in winter it ſhould ſtand warm, and if you change the moſs once a week it will be ſufficient.

Beſides theſe worms that are to be found in the earth, there are others which breed upon different herbs and trees, which afterwards become flies. The principal of theſe are, the palmer-worm, the crabtree-worm, and the caterpillar. Theſe are to be kept in little boxes, with holes to let in the air, and they muſt be fed with leaves of the ſame tree on which they were found. They are good baits for trout, chub, grayling, roach, and dace.

All ſorts of worms are better for being kept, except earth-bobs, and in caſe you have not been ſo provident, then the way to cleanſe and ſcour them quickly, is to lay them all night in water, if they are lob worms, and then put them into your bag with fennel: but you muſt not put your brandlings above an hour in water, and then put them into fennel, for ſudden uſe; but if you have time, and propoſe to keep them long, then they are beſt preſerved in an earthen pot, with good ſtore of moſs, which is to be freſh ſhifted every three or four days in ſummer, and every week or eight days in winter, or at leaſt the moſs taken from them, clean waſhed, and wrung between your hands till dry, and then put it to them again; and when your worm, eſpecially the brandling, begins to be ſick, drop about a ſpoonful of milk or cream upon the moſs; and note, that when the knot, which is near the middle of the brandling, begins to ſwell, he is ſick, and, if care is not taken, will die. If you want to ſcour worms in a little time, put them about an hour in grains and blood; then put them into clean moſs. Gilt-tails are ſooneſt ſcoured by putting them in a woollen bag, and keeping them in your waiſtcoat pocket. *See* FISHING.

WORMS. If you ſprinkle on the earth water, wherein the ſeeds and leaves of hemp have been ſodden, it will bring them out. The roots both of graſs and corn

corn are eagerly devoured by worms, eſpecially when the corn firſt begins to ſhoot. They may be killed with ſea-water ſprinkled on the ground, or with ſalt and water made into brine. Some affirm that ſoot ſtrewed on the ground will kill them; while others give the preference to lime and chalk for that purpoſe. Green walnut-huſks rubbed on a brick or tile, and held at the bottom of a pail of water till it is become bitter; this water, being ſprinkled on the ground, brings the worms out in a very ſhort time. If your garden is infeſted with worms, water your beds with the brine of ſalt meat, or with a ſtrong lixivium made of aſhes. Some people lay lime or aſhes about the plant, and neither worms nor ſnails will come near it. Others ſmoke their holes with cow dung; or kill them by ſprinkling mother of oil on their holes. The moſt proper time to pick them up is in the evening, or after conſiderable rain. To get them out, take a fork with two prongs, ſtick it in the ground, and ſhake it well; morning and evening are the beſt times for doing this. To preſerve apple trees from worms, lay ſea-onion about the roots. If they come naturally, bull's-gall, or horſe dung, mingled with urine, and poured to the roots, deſtroys them: but if they are hard to deſtroy, dig into the bark with a braſs pin, or ſuch kind of tool, till the point takes upon the worms, and drives them away; but where there is a place ulcerated, ſtop it with cow-dung. If you rub your cheſts of drawers and other wooden furniture, with linſeed oil, or with wormwood, rue, and other bitter herbs, it will preſerve them from the worm; and all wooden houſehold furniture that is rubbed with the lees of linſeed oil, and poliſhed, will make the better appearance.

WOUNDS. Dogs as well as other animals may be wounded ſeveral ways, and for a general cure, take the juice of red colewort, ſqueeze it into the wound, and it will cure the animal in a few days: thoſe dogs that hunt the wild boar are very ſubject to be wounded, and therefore it is very neceſſary they ſhould be readily dreſſed: they are commonly wounded in the belly: but provided the ſame be only ripped, though the guts come out, if unhurt, they are eaſily cured by a dextrous man, who is gently to put the guts in with his hand, which ought to be clean waſhed before, and anointed with oil of olives, or ſome good tender fat: you ſhould put a ſmall ſlice of bacon in the wound, and ſew it up with a ſurgeon's needle, and fine white thread twiſted and knotted at the ends, that it may not ſlip, and to prevent its ſoon rotting; the ſame may alſo be done by other places, and the wound muſt always be kept moiſt, that the dog may lick it, which is the beſt and moſt ſovereign ointment of all: the point of the needle ought to be ſquare, and the reſt round; dog keepers ought always to be furniſhed with them, as well as good thread and bacon.

It often happens that dogs are hurt by wild boars, in running over their bodies, though they have not injured them with their tuſhes; this animal, which is heavy, ſometimes breaks one of their ribs, or at leaſt puts them out; in this caſe take care to ſet them: but if there be a bruiſe or hurt, take ſimphiten root, the plaiſter of mellilot, pitch, or gum, oil of roſes, an equal quantity of each; mix all together, ſpread it on a linen cloth, and when you have cut off the hair on the place affected, apply the plaiſter to it as hot as he can endure it: but in *Savoy* and *Piedmont* they prepare a ſovereign remedy, called *Benjoin*, which they take from *Fir*, a plaiſter made of which, will not fall off till the cure is perfected.

WOUNDS. Hurts, mentioned here as they relate to horſes, which are ſuch ſerviceable creatures to mankind. Horſes receive hurts ſeveral ways, and in ſeveral parts of the body, and it is neceſſary the methods of curing them ſhould be here ſet down. If a horſe receives a wound with the ſhot of gunpowder, the farrier, in order to cure it, muſt firſt ſearch if the bullet be in the wound; if ſo let him take it out with an inſtrument made for that purpoſe; but in caſe it cannot be got out, patience muſt be had, for nature itſelf will wear it out of its own accord without any impediment, lead being of that nature, it will not canker: but to kill the fire, let him drop ſome varniſh with a feather to the bottom, and ſtop up the mouth of the wound with ſome ſort of flax dipped likewiſe in the ſame, then charge all the ſwollen place with the following charge:

Take a quarter of a pound of bole ammoniac, half a pound of linſeed oil, beaten into powder, as much of bean flowers, and three or four eggs, ſhells and all; a quantity of turpentine, a quart of vinegar, which mingle well together upon the fire, and being ſomewhat warm, charge all the ſore place with part thereof, and clap a cloth upon it to keep the wound warm; and ſo continue every day for four or five days together; but on the fifth, leave off anointing it, and tent it at the bottom with a tent dipped in hog's greaſe and turpentine melted together, renewing it once or twice every day till the fire is killed, which may be perceived by the matter in the wound, and falling down of the ſwelling, for as long as the fire has the upper hand, no thick matter will iſſue out, but only a thin yelloviſh water, neither will the ſwelling aſſuage; then take half a pound of turpentine waſhed in nine ſeveral waters, and put three yolks of eggs and a little ſaffron to it, tent it with this ointment, renewing it every day till the wound be whole.

But if the ſhot be quite through the wound, then take a few weavers linen thrumbs made very knotty, and dipping them firſt in varniſh, draw them through the wound, running them up in the wound at leaſt twice or thrice a day, and charging it on either ſide upon the ſwollen places with the charge aforeſaid, till you perceive the fire is killed; then clap a comfortable plaiſter upon one of the holes, and tent the other with a tent in the ſalve of waſhed turpentine, eggs, and ſaffron as aforeſaid.

But there are ſome farriers who are uſed to kill the fire with the oil of cream, and to heal up the wound with turpentine, wax, and hog's greaſe, melted together.

Or they kill it with ſnow water, and charge the ſwelled place with cream and balm mixed together, healing up the wound by dipping a tent in the yolk of an egg, honey, and ſaffron, well beaten together.

Others

Others in caſe of a wounded horſe, have recourſe to the following pills, that carry in them a wonderful and almoſt incredible efficacy.

Take the fineſt and cleareſt aſſa fœtida, bay-berries of *Provence* or *Italy*, and cinnabar, all in fine powder, of each a pound, incorporate them in a braſs mortar, with a ſufficient quantity of aqua vitæ, and make up the maſs into pills, each weighing fourteen drachms, which muſt be laid in a convenient place to dry; give two of theſe pills to the wounded horſe, once in two days, or once every day, until he has taken eight or ten, according to the greatneſs of the wound, and let him ſtand bridled two hours before, and as many after.

Theſe pills promote the cure of a wound by purifying the blood, reſiſting corruption, and may be kept twenty years, without any diminution of their virtue.

When the wound ſeems to be at a ſtand, and yet does not appear foul, it requires medicines that are endued with a power to make the fleſh grow; and the following powder is recommended, as being of extraordinary uſe in this caſe: Take true dragon's-blood and fine bole ammoniac, of each half an ounce; maſtich, olibanum, and ſarcocolla, three drachms of each; aloes, round birthwort, and roots of flower de lis, of each a drachm and an half, mixed and made into powder; but the effect of it will be more powerful if mixed with ſyrup of roſes, turpentine or juice of wormwood.

This indeed you will find will make the fleſh grow beyond expectation.

If a detergent or cleanſer be required, let the following water be uſed, which may eaſily be prepared thus, and it is called by farriers, who love to keep people in ignorance, the *Phagedenical water*: take two or three pounds of unſlaked lime newly made, put it into a large baſon of fine tin, and by degrees pour in five quarts of rain water, then ſetting the baſon in a convenient place for two days, ſtir the water often; after which ſuffer the lime to fall to the bottom, pour off the water by way of inclination, ſtrain it through brown paper, and to two pints of it add half a pint of good ſpirit of wine, an ounce of the ſpirit of vitriol, and as much corroſive ſublimate in fine powder; mix and preſerve it for uſe in a glaſs vial.

If you perceive a great deal of corruption in the wound, or any appearance of a gangrene, add to the whole quantity of the water an ounce of arſenic, diminiſhing the doſe proportionably, according to the quantity of water.

Now having laid down ſeveral uſeful medicines for the cure of wounds, it will not be improper to propoſe ſome certain maxims, on which the true way of proceeding in the cure is grounded:

Firſt, then, a horſe's wound muſt be probed very gently, and as ſeldom as poſſible, by reaſon his fleſh is extremely ſubject to corruption, and to grow foul on the leaſt contuſion that happens.

Secondly, the wound muſt be kept clean, and free from corrupt fleſh, which muſt be conſumed with powders.

Thirdly, a revulſion muſt be made in the beginning, that is, you muſt divert the courſe of the humours, and prevent their falling upon the wound: bleeding is the beſt revulſion, for it allays the heat of the humours, and leſſens the redundant quantity of them.

Fourthly, a horſe's tongue being as prejudicial to a wound as poiſon itſelf, he muſt not be ſuffered to lick his wound.

Fifthly, never proceed to ſuppuration if the humours can neither be diſſolved nor repelled; eſpecially in parts that are full of ligaments and ſinews, or near the bones.

Sixthly, if a wound be accompanied with a great contuſion, or is round or circular, in ſuch caſes inciſions and the application of cauſtics are required.

Seventhly, the wound muſt be carefully covered, for the air retards the cure.

Eighthly, the callous lips of a wound muſt be cut to the quick, before they can be re-united.

Beſides this general account of the wounds and the method of curing them, ſomething may be proper to be ſaid concerning thoſe hurts or wounds received in ſome particular parts of a horſe's body; and when he has received any ſuch in his back, you muſt apply oyſter ſhells reduced into a fine powder thereto, and let him eat ſome golden comfrey, cut into ſmall pieces, amongſt his oats.

The wounds of the breaſt, according to ſome modern authors, are cured with tents and ſoft folds of linen put over them, ſteeped in a compoſition made of verdigris, vitriol, and alum, of each an ounce, eight ounces of vinegar, and a pound of honey, boiled together till they become red.

Wounds in the belly are cured in the ſame manner as men's wounds are in that part, by ſowing up the whole peritonæum with a very ſtrong woollen thread, leaving the extremities without, and the ſkin with a ſtrong, hempen thread waxed, joining the lips of the wound together in the form of a buckle, and applying thereunto the common ointment proper for wounds; and in caſe any inflammation happens, you muſt apply ſome chalk diſſolved in vinegar to it.

When the guts of a horſe come out, you muſt not touch them, but put them in with a ſponge ſteeped in hot water, and then ſqueezed, to the end that it may only retain the heat.

Some, in putting in the guts, endeavour to make a horſe vomit, by putting a feather into his throat, which has been ſteeped in oil.

If the wound is not quite large enough to put them in through, you muſt make it wider; if the pannicles come out, you muſt cut it: when the guts are wounded or ſwelled, there is no likelihood of a cure; no more than there is when a horſe evacuates blood at his fundament.

Thoſe that are wounded near the groin, eaſily fall into convulſions; and in ſuch caſes you muſt keep the horſe from drinking, as much as poſſible; cover him well, and ſuffer him not to walk, but give him green things to eat.

Wounds in the knees, according as APASILTES informs

forms us, are difficult to be cured, becauſe there is but little fleſh and ſkin on that part as well as on the legs; and therefore thoſe medicines are to be uſed that are of a very drying nature: whereas, where there is ſtore of fleſh, you muſt uſe thoſe that are moderately drying.

When horſes are wounded with thorns, and other things, but lightly in ſome parts of their bodies, you muſt apply thereto honey and tallow boiled together; and when the wound is conſiderable, turpentine and oil, both hot.

Some, in order to take out that which has run into the foot, and for pricks, put nothing upon it but boiled elder; and if any thing ſhould penetrate between the foot and the hoof, it muſt be pulled out, and afterwards an ointment applied to it, made of verdigris, and the like; and care muſt be taken that the wound be well cleanſed.

Or elſe you may melt ſome turpentine, tallow and wax mixed together: it is neceſſary the medicines ſhould penetrate the bottom of the wound; and therefore if it be narrow, it muſt be enlarged: and this muſt be obſerved concerning all wounds.

To ſay nothing here of ſeveral ointments that are proper for wounds, and well known generally to thoſe who have occaſion to uſe them: if a nerve happens to be cut, you muſt cloſe it, and uſe a defenſive, to prevent a conburſe of humours; ſome take the back of the root of an elm, with the dregs of oil of olives, and boil them till a third part be waſted, ſo that there be but one pound left, which you muſt mix with two ounces of the powder of long ariſtolochy, and four of an hegoat's greaſe, or fat; you muſt boil it ſo much, that when you drop ſome of it upon a ſtone it will grow hard.

Some there are who make a mixture of laurel, anniſe, maſtich, and tartar, and incorporate them with cheeſe and hog's greaſe, to make an ointment of them.

If a nerve has received a hurt, you muſt foment it with ſome oil, wine, and honey; then apply thereunto a plaiſter made of the root of elder and honey, and the root of *althea*.

If the nerve is bruiſed, you muſt apply ſome fine flour, myrrh and aloes, mixed with the fleſh of a tortoiſe, to it; and if it be a little torn, make a circle round it with a hot iron, and draw a dozen lines acroſs in form of a little wheel.

In caſe the horſe happens to be wounded with a bone, bit of wood, or ſhord, and that the ſame ſtick in the fleſh or hoof, you muſt forthwith take it out; and after you have cleanſed it, apply to it a medicine made of verdigris, or ſome other plaiſter proper for wounds; put a tent into it, and the next day waſh it with ſweet wine, and anoint with things proper to heal, and put ſome barley-flour and alum upon it.

FRESH WOUND IN A HORSE. As ſoon as a horſe has received a wound, apply oil of turpentine, and it will prevent all ill conſequences; or, if you cannot eaſily procure oil of turpentine, waſh the part with warm water and brandy, or with common ſpirits and warm water.

All our beſt writers, from the days of GIBSON to the preſent time, have concurred in making heavy complaints againſt the farriers, for obſtinately adhering to the ancient method of treating wounds. It is ſtill too much their practice to make uſe of oils and greaſy applications, to cram the parts with long hard tents, to thruſt a whole candle into a wound, and there leave it, (which has prepared many a horſe for his laſt journey) and to begin too ſoon, or needleſsly, with eſcharotics.

In a healthy ſubject, fleſh-wounds are ſufficiently diſpoſed to unite and heal, nature herſelf furniſhing an agglutinating balſam; the chief care neceſſary, is to preſerve them from the air, and keep them clean. The proper medicaments, whether of the healing, detergent, or diſcutient claſs, are compoſed of turpentines, gums, and ſpirits, with as little oil as is conſiſtent with rendering the compoſition ſufficiently emollient. Inflammation renders poultices and fomentation neceſſary. Bring the lips of the wound together by bandage or ſewing; indeed the latter is not often neceſſary. A ſingle ſtitch is ſufficient for a wound two inches long; in large wounds, ſet the ſtitches full an inch diſtant; in thoſe ſeated upon prominent parts, ſuch as the hips, or the large muſcles, the ſtitches generally burſt in ſunder upon the horſe's lying down or riſing, on which account the lips muſt not be drawn too cloſe: the wound being deep, the needle muſt be paſſed deep in proportion. Should inflammation and great diſcharge enſue from the tightneſs of the future, relief will be obtained by cutting the ſtitches. In caſe of hemorrhage, from an artery divided, paſs a crooked needle underneath, and ſecure it with a waxed thread, in preference to ſilk; ſhould that be impracticable, clap a button of lint or tow, dipped in ſome proper ſtyptic, faſt upon the orifice of the bleeding veſſel, carefully keeping it there with a proper compreſs, until the eſchar be formed. Cover with rags dipped in brandy, tow ſpread with wound-ointment, &c. obſerving it as a general rule, to keep all divided parts as much at reſt as poſſible, to promote union. In two days the firſt dreſſing may come off, the parts may be fomented and poulticed, and a proper digeſtive applied; continue this until the fleſh ſhall appear florid, and the diſcharge healthy, and of good conſiſtence, when the fomentations may be diſcontinued, and the wound healed with proper attention to the ſuppreſſion (when needful) of the fungous fleſh; but eſpecial care ought to be had, not to dry the wound too much, and render it horny by the abuſe of eſcharotics. The tents, or doſſils made uſe of, ought to be ſoft and ſhort, and put in as looſe as poſſible.

Wounds upon the joints or tendons, and thoſe occaſioned by ſtakes or goring of oxen, are cured by the ſame method; in theſe latter, the orifice muſt be enlarged, and inſtead of the old farrier's method of thruſting up a candle, and ſtitching it faſt, to confine the matter and impede digeſtion, make an inciſion in form of a croſs, wide enough for the diſcharge, and proceed as before.

In gun-ſhot wounds, and in caſe of the intruſion and lodgment of any foreign body, ſuch ſhould be extracted when it can be done without too much pain and diſturbance;

ance; otherwiſe by emollient and drawing poultices; the orifice muſt generally be enlarged, and a depending one procured.

In ſcalds or burns, the ſkin being intire, bathe well three times a day with camphorated ſpirits, in which ſoap has been diſſolved, and keep the parts dreſſed with linen dipped in the ſame, or with a plaiſter of ſalt and ſoap; or uſe an embrocation of ſoap, ſalt, and camphorated ſpirits. When the ſkin is broken, anoint with ſalad or linſeed oil. Linſeed oil, red lead, and bees wax, half a pound each, boil and mix over a ſlow fire. Or, in caſe of great inflammation, bread and milk poultice with elder flowers. Yellow baſilicon with precipitate. Or, dreſs the burnt parts with two ounces of crude ſal ammoniac, boiled a few minutes in one quart of water, mix gradually with ſpirit of wine, one quart.

Ulcers muſt be brought to the ſtate of a wholeſome wound, and to diſcharge a good thick and white matter, previous to any attempt at healing. They muſt be carefully probed, and every cavity and ſinus detected, and thoroughly cleanſed to the very bottom. Dreſs, and fill with dry lint to the ſurface. Bandage tight. In ulcers of the human body, the application of cold water from a tea-pot has been recommended by authors of good repute; for inſtance, RIGBY, and lately by Mr. BAYNTON; adheſive plaiſter being applied for bandage. In ſome caſes oak bark, beat very fine, ſeven parts, with ceruſe powder, one part, may have a good effect. Alum water, or powdered charcoal, are of great uſe to counteract the fetid ſtench in putrid ulcers. All callous or horny ſubſtances muſt be extirpated with the knife or cauſtic. In hollow ſinuous ulcers, where no counter-opening can be made, injections muſt be uſed. When the bones are foul, which is generally diſcovered by a looſe, flabby fleſh, a thin, oleous, fetid diſcharge, and by the rough feel of the bone againſt the probe, it is neceſſary to extirpate the looſe fleſh, to come at the bone, in order to remove the carious part, which is beſt effected by the cautery. In gangrene, bark internally, and the mortified parts timely ſcarified, to eliminate the putrid ſerum. In the ſymptomatic fever ſometimes attendant upon wounds, cooling laxatives, clyſters, veneſection; in a depraved ſtate of the blood, alteratives, ſteel, *&c.* It is recommended to farriers to provide themſelves with proper leaden probes, needles, *&c.* from the ſurgeons-inſtrument makers.

Various Forms.

The *Common Poultice.* Mix half a pint; ſalad oil, three large ſpoonfuls; grated bread enough for due conſiſtence. Add the bread to the milk when boiling, afterwards beat in the oil thoroughly.

Suppurative or Ripening Poultice in the Strangles. Leaves of mallows and marſhmallows, green or dry, twenty handfuls; white lily root, waſhed and pounded, half a pound; linſeeds and ſenugreek ſeeds, bruiſed, four ounces each; boil very ſoft and pulpy, and add elder ointment, four ounces; and lard as much as needful. Mix, and keep for uſe.

Common Digeſtive Poultice, in greaſe, *&c.* Boil ground oatmeal, and ſtrong beer grounds, add lard enough to ſupple it. Turpentine, two ounces, may be added, or four ounces, to the foregoing. Or, lily-roots, linſeed, and rye flour.

Reſolvent. Onions and chamomile flowers, properly boiled and mixed, add gooſe-greaſe, or for want of it, neat's-foot oil. This is very efficacious to diſperſe ſwellings. Or, with oatmeal, cummin-ſeeds powdered, two ounces; and powdered camphor, half an ounce; or ſal ammoniac diſſolved in *Britiſh* ſpirit. Proper in bruiſes, and to diſperſe coagulated blood.

Anodyne. Boil chamomile, elder leaves or flowers, poppy, bay-leaves, and roſemary, with oatmeal, mix with elder ointment, and a little camphorated brandy.

Repellent and Aſtringent. Diſſolve alum in vinegar, or verjuice, add half the quantity of oil, with red wine lees, or ſtale beer grounds, and bean meal. Or, old verjuice, or diſtilled vinegar, one quart; alum, one ounce; curriers ſhavings, or oak-bark, boil to a poultice, with or without ſaturnine ointment, and apply warm twice a day.

Unguents, Emollient and Suppurative. Elder ointment. Or, neat's-foot oil, three pints; yellow wax, nine ounces; yellow roſin, half a pound; turpentine, two ounces; ground ginger, two ounces. Melt the roſin and wax in the oil, take off the fire, and add the turpentine; ſtrain hot, and mix in the ginger.

Stimulant and Diſcutient. Flanders oil of bays, half a pound; gooſe greaſe, four ounces; quickſilver, one ounce; turpentine, one ounce. Mix the quickſilver and turpentine thoroughly, then, adding the reſt, work well together. A quantity of digitalis, or fox-glove flowers, ſufficient to impregnate the whole maſs, may be beat up with it, the ointment being kept two or three weeks previous to uſe. To diſſolve tumours on the glands, or kernels, either in the brute or human ſpecies.

Bliſtering. Nerve, and ointment of marſhmallows, each two ounces; quickſilver, one ounce, rubbed in a mortar, with one ounce and a half of turpentine, till of a lead colour; mix thoſe well, and add cantharides, in fine powder, one drachm and a half; ſublimate, one drachm; oil of origanum, two drachms. Or, common ointment, or oil, two ounces; cantharides, three drachms. Obſerve that the flies are freſh and good. Cut the hair cloſe as poſſible, rub in well, and patiently. Tie the horſe up without litter, till the bliſter work. Cover with pitch plaiſter. When a rowel will not diſcharge, apply now and then a ſmall quantity of bliſter with a feather.

Digeſtive for Wounds. Venice turpentine and bees wax, one pound each; olive oil, one pound and half; roſin, twelve ounces; when melted, ſtir in two or three ounces of verdigris, finely powdered; ſtir on till cold. This may be uſed with red precipitate, inſtead of verdigris, half an ounce to four ounces. *Burgundy* pitch, one pound, may be added to the digeſtive. For wounds near the joints, *&c. Venice* turpentine, one ounce. Yolks of two eggs, honey, and tincture of myrrh, one ounce each. Balſam equal to FRIAR'S. Gum-Benjamin, three ounces; ſtorax, two ounces; balſam of *Peru* and *Tolu*, half an ounce each; ſuccotrine aloes, ſix drachms; myrrh, two ounces; rectified ſpirit, two pints; infuſe

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in a warm place ſeveral days, till the gums are diſſolved, then decant.

Tobacco Ointment. Leaf tobacco, half a pound; boil in a quart of red port to a pint, (or elder wine and diſtilled vinegar, equal parts) ſtrain, and add half a pound of tobacco in fine powder; lard or oil, one pound; roſin and bees-wax, four ounces each; roots of round birthwort, powdered, two ounces. Detergent, drying, and appeaſes pain.

Styptics againſt Bleeding. Puff-balls, dried and powdered. Sponge moderately dried by the fire, ſo as not to deſtroy its ſpring, and kept dry. Or, roche-alum and blue vitriol, three ounces each; ſpring water, one quart, boil till diſſolved, filter, and add oil of vitriol, half an ounce. Apply with doſſils of lint. COLDBATCH'S ſtyptic may be had of the druggiſts.

Gelding is ſafe at any age in a healthy ſubject. Having opened the ſcrotum, tie the cords with a ſtrong waxed thread, and then cut off the teſticle. Proceed as in other wounds. The old mode was the cautery, and no ligature; very unſafe. Moderate exerciſe. Several bottle-conjurors have gone about at different periods, pretending to make *a ſecret* of gelding horſes, and working them in a few days; and, *lamentabile dictu*, the ſecret has died with one of them, notwithſtanding a certain wiſe-acre employed himſelf two hours, endeavouring to bring the dying-man to a confeſſion. The itch for miracles ſeems innate. *Si Populus vult humbuggi, humbuggiatur.*

Swelled Neck from Bleeding. Warm fomentations, cooling ſaturnine ointment, bread and milk poultice. Check proud fleſh with red precipitate and burnt alum, fine powder. If ſwelling or indurations remain, ſpirits doubly camphorated, four ounces; bole, one drachm; aquafortis, twenty drops. Apply lint or tow, dipped in the mixture; bind with warm thick flannel. Proper in bruiſes of the back and withers. Or, rowel in the breaſts, and blow the ſkin up to the part affected.

Swelling or Bruiſe from the Saddle. Boil hay in equal parts of ſtale urine, iron quenched in it, and verjuice; ſpirits may be added after, or not. Bathe with the liquor, and charge with the hay as hot as can be borne. Renew. A ſit-faſt muſt be exſected with the knife, or extracted with pincers; in the latter caſe, place a wiſp of hay, and upon it a board, as a fulcrum, or reſt for the pincers. As to chafing with collar or harneſs, the moſt miſchief happens from wet, or the harneſs being rough dry; prevention, or inſtant remedy. Salt and water. Vinegar. Spirits to the raw places.

Poll-Evil, and Fiſtula in the Withers. Thoſe generally ariſe from groſs and brutal neglect, and would ſubmit in their early ſtage to the uſual repellents, hot vinegar, *&c.* with bleeding and cooling internals. When the inflammation increaſes, and it is obvious matter is forming, forward with poultices, if neceſſary, and wait until the abſceſs be thoroughly ripe, and fluctuating under the finger: then introducing one or more ſetons, from the upper to the very loweſt extremity of the tumour. This will ſucceed, and indeed make the beſt cure in a mild caſe; but in dangerous and inveterate ones, ſuch as I have ſeen, would be a very feeble and deceptious method, as I have already hinted; and, on a reference, I find Dr. BRACKEN of the ſame opinion. When the abſceſs on the poll is opened, if there be matter on both ſides, a depending orifice muſt be made in each. In the neceſſary operations with the knife, great care muſt be taken that the muſcles be not cut acroſs, and particularly that the white line, cervical ligament, or, as the farriers call it, the fix-fax of the neck, be not wounded; and that the parts be preſerved as much as poſſible from the air. Tie the horſe's head high, by which the ligament of the neck will be ſlackened, and leſs expoſed to danger, as the finger may be introduced under it. It is probable, that ſome operators in theſe caſes, may have been too free with the knife, but it is equally true, that in foul and fiſtulous ulcers, in horſes, no cure can be expected until the corrupt or callous fleſh ſhall be extirpated either with the knife or fire; and that at laſt there will be frequently ſuch an overflow of greaſy and gluey matter as will blunt and render uſeleſs the moſt potent corroſives, unleſs applied ſcalding hot.

The Common Digeſtive Ointment for Ulcers. Add to the general wound-ointment ſpirits of turpentine, or a few drachms of maſtich and myrrh, in fine powder, or tincture of myrrh. Or uſe the following; common tar, two pounds; turpentine and honey, half a pound each; a dozen yolks of eggs; melt, and when they are only milk warm, ſtir in one ounce of the beſt verdigris in fine powder, or an ounce or two of red precipitate, mix ſufficiently long, that theſe laſt do not ſink.

Phagedenic Water to ſuppreſs fungous Fleſh. Strong lime water, one quart; ſtir frequently ſeveral days, pour off clear, and add ſpirit of wine, eight ounces. Or, a ſtrong ſolution of *Roman* vitriol and alum, in water.

Cleanſing Mixture in Poll-Evil, or Fiſtula. Beſt vinegar and rectified ſpirit, half a pint each; white vitriol, diſſolved in a little water, half an ounce; tincture of myrrh, four ounces; ſhake when uſed. To be heated in a ladle, and the abſceſs waſhed with tow ſoaked in it. Fill with tow, moiſtened in the mixture, or ſoaked in ægyptiacum, or oil of turpentine, hot; and cover with tow ſoaked in vinegar and whites of eggs beat together; warm woollen over all.

Scalding Mixtures. When all meaſures have failed to bring the ulcer to good condition, from its coldneſs, and the ſuperflux of matter, ſcalding has generally been reſorted to with ſucceſs; but I think it ought not to be adopted in caſes of much inflammation. Corroſive ſublimate, verdigris in fine powder, and *Roman* vitriol, pounded, two drachms each; green copperas, half an ounce; ægyptiacum, two ounces; oils of turpentine, and train, or linſeed oil, eight ounces each; rectified ſpirit, four ounces; mix in a bottle for uſe. Or, verdigris, half an ounce; oil, half a pint; oil of turpentine, four ounces; of vitriol, two ounces. Firſt cleanſe the abſceſs with ſponge and vinegar, then pour in the mixture ſcalding hot, from a ladle with a ſpout; cloſe the lips with ſtitches, and cover to remain ſeveral days; if then the matter appear thick and good, nothing farther will be needed than ſpirituous applications; if otherwiſe, the operation muſt be repeated. In a confirmed caſe of this kind, what would be the event of covering the abſceſs with a *Burgundy* pitch plaiſter,

making one or more fetons, and turning the horſe upon a ſalt marſh?

To promote the Growth of Fleſh. Dragon's blood, bole, maſtich, olibanum, and round birthwort, half an ounce each; ſuccotrine aloes, one drachm and a half; make an ointment with turpentine.

Applications in Gangrene. After the neceſſary ſcarifications, waſh the parts with ſtrong ſalt and water, and old verjuice, equal parts; or, the nitrous acid. Or, boil the following in one gallon of ſtrong vinegar to two quarts; alum, one pound; copperas, half a pound; verdigris, fine powder, three ounces. Shake as you uſe it: if not ſufficiently ſtrong, add to each quart, quick-ſilver, one ounce, diſſolved in two ounces of aquafortis. Foment and poultice. Dreſs with baſilicon, four ounces; oil of turpentine and ægyptiacum, two ounces each, melted together.

Varicous Ulcers, or thoſe among the blood-veſſels, muſt be bathed once or twice a day, with warm fomentations of oak bark, pomegranate flowers, red roſe buds, alum, and white vitriol, boiled in vinegar.

Fomentations, Diſcutient and Repellent. Wormwood, ſouthernwood, and chamomile, two handfuls each; bay and juniper berries, bruiſed, one ounce each; crude ſal ammoniac and pot-aſh, two ounces each; boil in three quarts of ſpring water to two; to every quart, when uſed, add one pint of ſpirits of wine camphorated.

Drawing Applications. Arſmart and brooklime, equal quantities. Juſt cover them with ſtale urine, ſtop cloſe ſome days. Boil for uſe, and apply hot. This is ſaid to be particularly efficacious in a ſudden ſtrain of the ſhoulder, with much tenſion and inflammation, and may be applied in a kind of boot, wide at top, and faſtened over the withers.

Cataplaſms for Swellings are made of black ſoap, yeaſt, and honey, a quarter of a pound of each; gooſe-greaſe, a ſmall quantity of ginger, in fine powder.

WRIST. The bridle wriſt, is the wriſt of the horſeman's left hand.

A horſeman's wriſt and his elbow ſhould be equally raiſed, and the wriſt ſhould be two or three fingers above the pommel of the ſaddle.

YARD-FALLEN, a malady in a horſe, which proceeds from want of ſtrength to draw it up within the ſheath, ſo that it hangs down between his legs.

This is cauſed either by the weakneſs of that member, or by means of ſome reſolution in the muſcles and ſinews of it, cauſed by a violent ſlip, ſtrain, or ſtroke on the back, or elſe by ſome great wearineſs or tiring.

For the cure: firſt waſh the yard with white wine warmed, and then anoint it with oil of roſes and honey mixed; then put his ſheath in a little canvas bolſter, to keep it from falling down, and dreſs him thus once in twenty-four hours, till he is recovered.

Keep his back as warm as you can, both with a cloth and a charge of plaiſter, made of bole ammoniac, eggs, wheat flour, dragon's blood, turpentine, and vinegar; or elſe lay wet hay, or a wet ſack next his back, and over that a dry cloth, which will do very well.

YARD FOUL; if a horſe's yard is ſo fouled or furred without, that he ſtales in his ſheath, melt freſh butter, with white wine vinegar, and having pulled out his yard, and taken off all the filth, waſh it with the liquor, and alſo inject ſome of it into the yard.

YARD MATTERING IN A HORSE, is moſt commonly occaſioned by his over-freeneſs in ſpending upon mares in covering time; and when the horſe and mare are both too hot, it burns them, cauſing the running of the reins.

The ſigns of it are the iſſuing of a yellow matter from his yard, and a ſwelling at the end of it, and when he ſtales, he does it with a great deal of pain, and cannot eaſily draw up his yard again.

For the cure: Boil an ounce of roche-alum, and a pint of white wine, till the alum be diſſolved. Inject the liquor blood-warm with a ſyringe, throwing it up his yard as far as you can, four or five times a day. This will perfectly cure him.

YEARN, (in Hunting) ſignifies to bark as beagles properly do at their prey.

The YELLOWS IN A HORSE. A diſeaſe, the ſame that is uſually called the jaundice in human bodies, of which there are two ſorts, the yellow and the black.

The yellow proceeds from the overflowing of the gall, cauſed by choler; and the other from the overflowing of the ſpleen, cauſed by melancholy, and are both dangerous infirmities, but the black is the moſt mortal.

If the horſe be young, it is eaſily cured; but in old ones, where the liver has been long diſeaſed, it becomes impracticable.

This diſtemper is known by the horſe's changing his natural colour of white, in the ball of his eyes, to yellow; his tongue, the inſide of his lips, and the outward parts of his noſtrils, are alſo coloured yellow. The horſe is dull, and refuſes all kinds of food; a ſlow fever is perceived, but it increaſes together with the yellowneſs. The dung is often hard and dry, of a pale yellow, or light pale green. His urine is commonly of a dark, dirty, brown colour, and when it has ſettled, ſometimes looks like blood. He ſtales with pain and difficulty.

The black is known by quite contrary ſymptoms; for the whites of his eyes, mouth, and lips, will be of a duſkiſh colour, and not ſo clear and ſanguine as before.

For the cure: diſſolve an ounce of *mithridate*, in a quart of ale or beer, and give it the horſe lukewarm; or inſtead of mithridate, two ounces of *Venice* treacle; or if that cannot be had, three ſpoonfuls of common treacle.

Bleed him plentifully, and as coſtiveneſs is a general concomitant of this diſorder, a clyſter ſhould be given, and the next day the following purge:

Take of *Indian* rhubarb, in powder, one ounce and a half; of ſaffron, two drachms; of ſuccotrine aloes, ſix drachms; and of ſyrup of buckthorn, a ſufficient quantity to make the whole into a ball.

If the rhubarb ſhould be thought too extenſive, it may be omitted, and the ſame quantity of cream of tartar, and half an ounce of *Caſtile* ſoap, with four drachms more of aloes added. This may be repeated two or

three

three times, and the following balls and drink given immediately after:

Take of æthiops mineral and millepedes, of each half an ounce; and of *Caſtile* ſoap, one ounce; make the whole into a ball, and repeat the ſame ſeveral days ſucceſſively, waſhing it down with a pint of the following decoction:

Take of madder-root and turmeric, of each four ounces; of burdock root, ſliced, half a pound; of monks rhubarb, four ounces; boil the whole in a gallon of forge water till it is reduced to three quarts; then ſtrain the liquor from the drugs, and ſweeten it with honey.

If this method be purſued, the diſtemper will, in all probability, abate in a week: but if it ſhould prove too obſtinate for this treatment, mercurial purges ſhould be given, and afterwards the following medicine:

Take of ſalt of tartar, two ounces; live millepedes and filings of ſteel, of each three ounces; of ſaffron, half an ounce; of *Caſtile* or *Venice* ſoap, half a pound; make the maſs into balls about the ſize of a pullet's egg with honey, and give one of them night and morning, waſhing it down with the above drink.

Mr. LAWRENCE ſpeaks of the yellows as follows, viz. That the ſymptoms are ſluggiſhneſs, want of appetite, rough coat, loſs of fleſh, and hollowneſs of flank, low fever, yellowneſs of the eyes and mouth, pale or brown urine, crude, looſe, and pale excrement, or very dark coloured, and in ſmall balls.

Mr. BRACKEN ſays, ſhould the diſeaſe have ariſen from high keep and indigeſtion, for want of air and exerciſe, or timely purgation, and the horſe be in tolerable ſtrength, begin the cure by once moderate bleeding, and the next day give the mild aloetic purge, with rhubarb, turmeric, and ſaffron. After the ſetting of this doſe, proceed regularly with the following infuſion, until the diſeaſe ſhall ſubmit, which in a favourable and recent caſe may very well happen in a week. The infuſion: Salt of tartar, two ounces; turmeric, three ounces; ſaffron and ſoap of tartar, each half an ounce; filings of iron, three ounces; mix in a gallon of beer, (porter is preferable) and infuſe in a ſtone bottle, corked up two or three days, ſhaking frequently. Strain off from a pint to a pint and a half for a doſe, milk warm every morning faſting.

Or *Indian* rhubarb, turmeric, madder, liquorice root, ſal polychreſt, in powder, equal quantities; make balls with *Caſtile* ſoap and honey. A common ſized ball twice a day. This ſeldom fails. Clyſter once or twice, if needful. Rowel. Water-gruel. Clothing. Air. Walking exerciſe. Perhaps another mild purge, or ſlight courſe of ſalts, may be neceſſary to bring the horſe into good working condition.

Should the diſeaſe proceed from ſeverity of labour, and chronic obſtructions, and the liver be affected, the moſt powerful chemical deobſtruents will be required. The external appearance of the horſe will ſhew the caſe but too plainly. Preparations of ſteel. Æthiop's mineral, or the antimonial powder, muſt be tried; but the adminiſtration of theſe ought to be in profeſſional hands. GIBSON recommends bleedings, from the inflammatory ſtate in which he has found the livers, on diſſection of jaundiced horſes.

Frequently there will be but little occaſion for medicine, for the horſe will be dead in two or three days after being taken from work, when the liver will be found totally decayed; or a dark ſanious diſcharge will iſſue from the noſe and mouth, which the farriers ſay is the diſeaſe changed to the black jaundice, and which is incurable.

The inveterate jaundice may with the utmoſt propriety take the denomination of conſumption in horſes; a caſe in which the ſucceſs of a long courſe of medicine would by no means be ſo certain as the expence and trouble. A ſhort courſe well adviſed. Salt marſhes. Straw-yard, with carrots and lucern hay.

To YERK OR STRIKE IN THE MANAGE, is ſaid of a horſe, when he flings and kicks with his whole hind quarters, ſtriking out the two hinder legs near together, and even to their full extent.

YIELD OR SLACK THE HAND, (with Horſemen) is to ſlack the bridle, and give the horſe head.

ZAIN, is a horſe of a dark colour, neither grey nor white, and without any white ſpot or mark upon him.

FINIS.

R. NOBLE, Printer,
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DIRECTIONS *for placing the* PLATES.

The Frontiſpiece to face the Title.
Angling between B and C.
Plate II. between F and G.
III. between I and K.
IV. between K and L.
V. in the middle of Q.
VI. between Q and R.
VII. in the middle of P p.
VIII. between F f and G g.
Plate IX. in the middle of Y y.
X. between Y y and Z z.
XI. ditto.
XII. between 3 A and 3 B.
XIII. between 3 K and 3 L.
XIV. between 3 L and 3 M.
XV. between 3 R and 3 S.
XVI. between 3 X and 3 Y.